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INSTRUMENT APPROACH PROCEDURE CHARTS

A IFR ALTERNATE AIRPORT MINIMUMS

Standard alternate minimums for non precision approaches are 800-2 (NDB, VOR, LOC, TACAN, LDA, VORTAC, VOR/DME, ASR or WAAS LNAV); for precision approaches 600-2 (ILS or PAR). Airports within this geographical area that require alternate minimums other than standard or alternate minimums with restrictions are listed below. NA - means alternate minimums are not authorized due to unmonitored facility or absence of weather reporting service. Civil pilots see FAR 91. IFR Alternate Airport Minimums: Ceiling and Visibility Minimums not applicable to USA/USN/USAF. Pilots must review the IFR Alternate Airport Minimums Notes for alternate airfield suitability.

NAME ALTERNATE MINIMUMS

ALBANY, OR

ALBANY MUNI **VOR/DME or GPS-A**
NA except for operators with approved weather reporting service.

ARLINGTON, WA

ARLINGTON MUNI **NDB or GPS Rwy 34**
Category D, 800-2½.
NA when Paine Field control tower closed.

ASTORIA, OR

ASTORIA RGNL **RNAV (GPS) Rwy 26¹²**
VOR Rwy 8³

- ¹NA when local weather not available.
²Categories A, B, 900-2; Category C, 900-2¾;
Category D, 900-3.
³Category C, 800-2¾; Category D, 900-3.

AURORA, OR

AURORA STATE **LOC Rwy 17¹**
RNAV (GPS) Rwy 17²³
RNAV (GPS) Rwy 35²

- ¹Category D, 800-2½.
²NA when local weather not available.
³Categories A, B, 900-2; Category C, 900-2¾;
Category D, 900-2¾.

BAKER, MT

BAKER MUNI **NDB Rwy 13¹**
NDB Rwy 31²

- ¹Categories A,B, 1100-2; Categories C,D,
1100-3.
²Categories A,B, 1000-2; Category C, 1000-2¾;
Category D, 1000-3.

BAKER CITY, OR

BAKER CITY MUNI **RNAV (GPS) Rwy 13¹²**
VOR-A¹³
VOR/DME Rwy 13²⁴

- ¹NA when local weather not available.
²Category D, 900-2¾.
³Categories A,B, 1900-2; Categories C,D,
1900-3.
⁴NA when control zone not in effect.

NAME ALTERNATE MINIMUMS

BELLINGHAM, WA

BELLINGHAM INTL **ILS or LOC Rwy 16**
RNAV (GPS) Rwy 16
NA when local weather not available.

BIG PINEY, WY

MILEY MEMORIAL FIELD **VOR Rwy 31**
Category D, 800-2¼.

BILLINGS, MT

BILLINGS LOGAN
INTL **NDB Rwy 10L¹**
RNAV (GPS) Rwy 10L²
RNAV (GPS) Rwy 28R³

- ¹Category D, 800-2¼.
²Categories A,B,C,D, 800-2¼.
³Categories A,B, 900-2; Categories C,D,
900-3.

BOISE, ID

BOISE AIR TERMINAL(GOWEN
FIELD) **LOC BC Rwy 28L¹**
RNAV (GPS) Y Rwy 10R²
RNAV (GPS) Y Rwy 28L²
VOR/DME or TACAN Rwy 10L¹
VOR/DME or TACAN Rwy 28L¹

- ¹Category E, 900-3.
²Category E, 1000-3.

BOZEMAN, MT

GALLATIN FIELD **VOR Rwy 12**
Category C, 800-2¼; Category D, 800-2½.

BREMERTON, WA

BREMERTON NATIONAL .. **RNAV (GPS) Rwy 1**
RNAV (GPS) Rwy 19¹

- NA when local weather not available.
¹Categories A,B, 1200-2; Categories C,D,
1200-3.

NAME ALTERNATE MINIMUMS

BUFFALO, WY

JOHNSON COUNTY **RNAV (GPS) Rwy 31¹**
VOR/DME Rwy 31²

NA when local weather not available.

¹Category D, 800-2½.

²Category C, 800-2½; Category D, 800-2½.

BURLEY, ID

BURLEY MUNI **VOR-A**
VOR/DME-B

NA when local weather not received.

BURLINGTON/MOUNT VERNON, WA

SKAGIT RGNL **NDB Rwy 10¹**
RNAV (GPS) Rwy 10
RNAV (GPS) Rwy 28

NA when local weather not available.

¹Categories A,B, 1300-2; Categories C,D, 1300-3.

BURNS, OR

BURNS MUNI **VOR Rwy 30**
Categories A, B, 1400-2; Categories C,D, 1400-3.

BUTTE, MT

BERT MOONEY **ILS Y Rwy 15¹**
LOC/DME Rwy 15²
RNAV (GPS) Y Rwy 15³
RNAV (GPS) Z Rwy 15,1200-2
VOR or GPS-B,1400-3
VOR/DME or GPS-A,3000-3

¹Categories A, B, C, 1200-4.

²Categories A,B, 1300-2; Categories C,D, 1300-3.

³Categories A,B, 1500-2; Categories C,D, 1500-3.

CALDWELL, ID

CALDWELL
INDUSTRIAL **RNAV (GPS) Rwy 12**
RNAV (GPS) Rwy 30

NA when local weather not available.

CASPER, WY

CASPER/NATRONA
COUNTY INTL **ILS or LOC Rwy 3**
ILS, Categories A,B, 800-2; Category C 800-2½; Category D, 800-2½; Category E, 900-3.
LOC, Category C, 800-2½; Category D, 800-2½; Category E, 900-3.

NAME ALTERNATE MINIMUMS

CHEYENNE, WY

CHEYENNE RGNL/JERRY OLSON
FIELD **ILS or LOC Rwy 27¹**
NDB Rwy 27¹
RNAV (GPS) Rwy 9²
RNAV (GPS) Rwy 13²
RNAV (GPS) Rwy 31²

¹NA when control tower closed.

²NA when local weather not available.

CODY, WY

YELLOWSTONE
REGIONAL **RNAV (GPS) Rwy 22¹**
VOR or GPS-A²

¹Category C, 800-2½; Category D, 200-2½.

²Category D, 900-3.

COEUR D'ALENE, ID

COEUR D'ALENE-PAPPY
BOYINGTON FIELD **ILS or LOC/DME Rwy 5**
NDB Rwy 5
RNAV (GPS) Rwy 5
VOR Rwy 5
VOR/DME Rwy 1

NA when local weather not available.

CORVALLIS, OR

CORVALLIS MUNI **VOR-A**
Categories A,B,1200-2; Categories C,D, 1200-3.

DEER PARK, WA

DEER PARK **RNAV (GPS) Rwy 34**
NA when local weather not available.

DILLON, MT

DILLON **VOR or GPS-A,1500-3**
VOR/DME or GPS-B
NA when Dillon altimeter setting not available.

DOUGLAS, WY

CONVERSE COUNTY **VOR Rwy 29**
Categories A,B, 1100-2; Categories C,D, 1100-3. DME standard.

EASTSOUND, WA

ORCAS ISLAND **RNAV (GPS)-A**
Categories A, B, 1100-2.
NA when local weather not available.

ELLENSBURG, WA

BOWERS FIELD **RNAV (GPS) Rwy 25¹**
RNAV (GPS) Rwy 29
VOR-B²

NA when local weather not available.

¹Category D, 800-2½.

²Category A, 1500-2.

NAME ALTERNATE MINIMUMS

EPHRATA, WA

EPHRATA MUNI **RNAV (GPS) Rwy 3**
RNAV (GPS) Rwy 21
VOR/DME Rwy 3
VOR Rwy 21

NA when local weather not available.

Category D, 1300-3.

EUGENE, OR

MAHLON-SWEET

FIELD **ILS or LOC/DME Z Rwy 16R¹**
ILS or LOC Y Rwy 16R¹
ILS or LOC/DME Rwy 16L¹²
RNAV (GPS) Rwy 34R²
VOR or GPS-A³

¹NA when control tower closed.

²NA when local weather not available.

³Categories A,B, 900-2; Category C, 900-2½;
Category D, 900-2¾.

EVANSTON, WY

EVANSTON-UINTA COUNTY

BURNS FIELD **ILS or LOC/DME Rwy 23**
Categories C,D, 700-2.

EVERETT, WA

SNOHOMISH COUNTY(PAINE

FIELD) **ILS or LOC/DME Rwy 16R**
NA when control tower closed.
NA when local weather not available.

FORT BENTON, MT

FORT BENTON **RNAV (GPS) Rwy 23**
NA when local weather not available.

GILLETTE, WY

GILLETTE-CAMPBELL

COUNTY **ILS or LOC Rwy 34¹²**
RNAV (GPS) Rwy 16³
RNAV (GPS) Rwy 34⁴
VOR/DME Rwy 16⁵
VOR/DME Rwy 34¹

¹Categories A,B, 900-2; Category C, 900-2½;
Category D, 1000-3.

²NA when control tower closed.

³Categories A,B,C, 800-2¾; Category D,
1000-3.

⁴Categories A,B,C,D, 1200-4.

⁵Category C, 800-2¾; Category D, 1000-3.

GLASGOW, MT

WOKAL FIELD/

GLASGOW INTL **VOR Rwy 12**
Categories A,B, 900-2; Categories C,D, 900-3.
VOR/DME standard.

NAME ALTERNATE MINIMUMS

GLENDIVE, MT

DAWSON

COMMUNITY **NDB or GPS Rwy 12,900-2¾**

GOODING, ID

GOODING MUNI **RNAV (GPS) Rwy 7**
RNAV (GPS) Rwy 25

NA when local weather not available.

GRAY AAF (KGRF)

FORT LEWIS, WA **NDB Rwy 15**
NDB Rwy 33
ILS or LOC Rwy 15
COPTER NDB Rwy 15

NA when control tower closed.

GREAT FALLS, MT

GREAT FALLS INTL **NDB Rwy 34**
Category D, 800-2¼.

GREYBULL, WY

SOUTH BIG HORN COUNTY **RNAV (GPS)-A**
RNAV (GPS) Rwy 33¹

NA when local weather not available.

¹Category D, 1200-3.

HAILEY, ID

FRIEDMAN

MEMORIAL **RNAV (GPS) W Rwy 31**
Categories A,B, 1900-2; Category C, 1900-3.

HAVRE, MT

HAVRE CITY-COUNTY **VOR Rwy 26**
Categories A, B, 900-2; Category C, 900-2¾;
Category D, 900-3.

NAME ALTERNATE MINIMUMS

HELENA, MT

HELENA RGNL ILS or LOC Y Rwy 27¹²
 ILS or LOC Z Rwy 27¹²
 LOC/DME BC-C¹³
 NDB-D¹⁴
 RNAV (GPS) Y Rwy 9⁵
 RNAV (GPS) Rwy 23⁶
 RNAV (GPS) X Rwy 27⁵
 RNAV (RNP) Z Rwy 9⁷
 RNAV (RNP) Y Rwy 27⁷
 RNAV (RNP) Z Rwy 27⁷⁹
 VOR-A⁸
 VOR/DME-B⁸

¹NA when control tower closed.

²Categories A, B, 1600-2; Categories C, D, E, 1600-3.

³Categories A, B, 1300-2; Categories C, D, 1300-3.

⁴Category A, 1200-2.

⁵Categories A, B, 1600-2; Categories C, D, 1600-3.

⁶Categories A, B, 900-2; Category C, 900-2½; Category D, 900-3.

⁷NA when local weather not available.

⁸Categories A, B, 2900-2; Categories C, D, 2900-3.

⁹1000-4.

HOQUIAM, WA

BOWERMAN RNAV (GPS) Rwy 24¹
 VOR/DME Rwy 24²
 VOR Rwy 6¹

¹Category D, 800-2½.

²Categories A,B, 900-2; Category C, 900-2½; Category D, 900-3.

IDAHO FALLS, ID

IDAHO FALLS RGNL ILS or LOC Rwy 20¹
 LOC BC Rwy 2²
 RNAV (GPS) Rwy 20³
 VOR Rwy 20³

¹ILS, Category E, 700-2½. LOC, Category E, 800-2½.

²Category E, 800-2½.

³NA when local weather not available.

JACKSON, WY

JACKSON HOLE RNAV (GPS) X Rwy 1¹
 RNAV (GPS) Y Rwy 19¹
 RNAV (RNP) Y Rwy 1, 10681200-4
 VOR/DME Rwy 1²
 VOR/DME Rwy 19³

¹Categories A,B, 1200-2; Categories C,D, 1200-3.

²Categories A,B,1000-2; Categories C,D, 1000-3.

³Categories A,B,1400-2; Categories C,D, 1400-3.

NAME ALTERNATE MINIMUMS

JEROME, ID

JEROME COUNTY RNAV (GPS) Rwy 9
 RNAV (GPS) Rwy 27¹
 VOR/DME-A

NA when local weather not available.

¹Categories A, B, 1300-2; Categories C, D, 1300-3.

JOHN DAY, OR

GRANT COUNTY RGNL/
 OGILVIE FIELD RNAV (GPS) Y Rwy 9
 Category B, 900-2; Category C, 900-2½.

KALISPELL, MT

GLACIER PARK INTL ILS or LOC Rwy 2¹
 RNAV (RNP) Y Rwy 2²
 RNAV (RNP) Rwy 20, 800-2½²

¹Categories C, D, 700-2.

²NA when local weather not available.

KLAMATH FALLS, OR

KLAMATH FALLS ILS or LOC Rwy 32¹
 RNAV (GPS) Rwy 14²
 VOR/DME or TACAN Rwy 14³
 VOR/DME or TACAN Rwy 32⁴
 VOR or GPS-B,2100-3

¹Categories A,B, 900-2; Category C, 900-2½; Category D, 1000-3. LOC, DME required.

²Categories A,B, 900-2; Category C, 900-2½; Category D, 1000-3.

³Categories C,D, 1000-3; Category E, NA.

⁴Category B, 900-2; Categories C,D, 1000-3; Category E, 1500-3.

LAKEVIEW, OR

LAKE COUNTY VOR/DME-A
 Categories A,B, 900-2; Category C, 900-2½;
 Category D, 900-2½.

LEWISTON, ID

LEWISTON-NEZ PERCE
 COUNTY ILS Rwy 26¹²
 RNAV (GPS) Rwy 8³
 RNAV (GPS) Rwy 12³
 RNAV (GPS) Rwy 26³
 VOR Rwy 8⁴
 VOR Rwy 26³

¹ILS, Category D, 800-2½.

²NA when control tower closed.

³Category D, 800-2½.

⁴Categories A, B, 1100-2; Categories C, D, 1100-3.

LEWISTOWN, MT

LEWISTOWN MUNI RNAV (GPS) Rwy 7
 VOR Rwy 7

Category D, 800-2½.

NAME ALTERNATE MINIMUMS

LIVINGSTON, MTMISSION FIELD **VOR/DME-B¹**
VOR-A²¹Categories A, B, 900-2; Category C, 900-2½;
Category D, 1000-3.²Categories A, B, 2200-2; Categories C, D,
2200-3.**MC MINNVILLE, OR**MC MINNVILLE MUNI **ILS or LOC Rwy 22**
RNAV (GPS) Rwy 4
RNAV (GPS) Rwy 22
VOR/DME-B

NA when local weather not available.

Category D 800-2¼.

MEDFORD, ORROGUE VALLEY INTL-
MEDFORD **ILS or LOC/DME Rwy 14¹²**
LOC/DME BC-B²³
RNAV (GPS)-D³
RNAV (GPS) Rwy 14⁴
VOR-A⁵
VOR/DME-C³
VOR/DME Rwy 14⁵¹ILS, Categories A, B, C, 700-2; Category D,
900-2½. LOC, Category D, 900-2½.²NA when control tower closed.³Categories A, B, 2300-2; Categories C, D,
2300-3.⁴Categories A, B, 1100-2; Categories C, D,
1100-3.⁵Categories A, B, 1400-2; Category C, D
1400-3.**MISSOULA, MT**MISSOULA INTL **ILS Rwy 11¹**
RNAV (GPS) Y Rwy 11²³
RNAV (RNP) Z Rwy 11², 800-2½
VOR/DME or GPS-A, 2000-3
VOR/DME or GPS-B, 2000-3¹ILS, 1600-6. LOC, NA.²NA when local weather not available.³Categories A, B, 1900-2; Categories C, D,
1900-3.**MOSES LAKE, WA**GRANT COUNTY INTL ... **ILS or LOC Rwy 32R¹**
NDB Rwy 32R²
RNAV (GPS) Rwy 4¹
RNAV (GPS) Rwy 14L¹
RNAV (GPS) Rwy 22¹
VOR Rwy 4²
VOR -1 Rwy 14L²
VOR -3 Rwy 14L²
VOR Rwy 22²
VOR Rwy 32R²¹NA when local weather not available.

NAME ALTERNATE MINIMUMS

NEWCASTLE, WYMONDELL FIELD **VOR or GPS Rwy 31**
NA except for operators with approved weather
reporting service.
Categories A, B, 900-2; Categories C, D, 900-3.**NORTH BEND, OR**SOUTHWEST OREGON
RGNL **ILS or LOC Rwy 4¹**
NDB or GPS Rwy 4²
VOR or GPS-A³
VOR/DME or GPS-B⁴
VOR/DME Rwy 4⁴¹ILS, Categories A, B, 800-2; Category C, 900-
2¼, Category D, 1000-3. LOC, Category C,
900-2¼, Category D, 1000-3.²Category C, 900-2¼; Category D, 1000-3.³Categories A, B, 1100-2; Categories C, D,
1100-3.⁴Categories C, D, 1000-3.**OAK HARBOR, WA**AJ EISENBERG **RNAV (GPS) Rwy 7**
NA when local weather not available.**OLYMPIA, WA**OLYMPIA RGNL **ILS or LOC Rwy 17¹²**
RNAV (GPS) Rwy 17²
RNAV (GPS) Rwy 35²
VOR-A²³
VOR/DME Rwy 35²¹ILS, Categories C, D, 700-2.²NA when local weather not available.³Category D, 800-2¼.**ONTARIO, OR**ONTARIO MUNI **RNAV (GPS) Rwy 14**
RNAV (GPS) Rwy 32
NA when local weather not available.**PASCO, WA**TRI-CITIES **ILS or LOC Rwy 21R¹²**
RNAV (GPS) Rwy 3L
RNAV (GPS) Rwy 12
RNAV (GPS) Rwy 21R
RNAV (GPS) Rwy 30
VOR Rwy 21R³
VOR/DME Rwy 30

NA when local weather not available.

¹NA when control tower closed.²ILS, Categories A, B, C, 700-2; Category D,
700-2¼. LOC, Category D, 800-2¼.³Category D, 800-2¼.

NAME ALTERNATE MINIMUMS

PENDLETON, OR

EASTERN OREGON RGNL AT

PENDLETON **ILS or LOC/DME Rwy 25¹**
RNAV (GPS) Rwy 7
RNAV (GPS) Rwy 11
RNAV (GPS) Rwy 25
RNAV (GPS) Rwy 29
VOR Rwy 7

NA when local weather not available.

¹ILS, NA when control tower closed.

PINEDALE, WY

PINEDALE/RALPH WENZ

FIELD **NDB-A¹**
RNAV (GPS) Rwy 11²
RNAV (GPS) Rwy 29²

NA when local weather not available.

¹Category C, 800-2½; Category D, 800-2½.

²Category D, 800-2½.

POCATELLO, ID

POCATELLO RGNL **ILS or LOC Rwy 21¹**
RNAV (GPS) Rwy 3²
RNAV (GPS) Rwy 21²

¹NA when control zone not in effect.

²NA when local weather not available.

PORT ANGELES, WA

WILLIAM R

FAIRCHILD INTL **ILS or LOC Rwy 8**
RNAV (GPS) Rwy 8¹
RNAV (GPS) Rwy 26

NA when local weather not available.

¹Categories A, B, 1000-2; Categories C, D, 1000-3.

NAME ALTERNATE MINIMUMS

PORTLAND, OR

PORTLAND INTL **ILS or LOC Rwy 10L¹**
ILS or LOC Rwy 10R²
ILS or LOC Rwy 28L³
ILS or LOC Rwy 28R⁴
LOC/DME Rwy 21⁵
RNAV (GPS) Rwy 10L⁵
RNAV (GPS) Rwy 10R⁵
RNAV (GPS) Rwy 12⁷
RNAV (GPS) Rwy 28L⁸
RNAV (GPS) Rwy 28R⁸
VOR/DME Rwy 21⁵
VOR-A⁹
VOR Rwy 28R⁵

¹ILS, Category A, 700-2; Categories B,C, 800-2; Category D, 1000-3. LOC, Category D, 1000-3.

²Categories A,B, 900-2; Category C, 900-2½; Category D, 1000-3; Category E, 1100-3.

³ILS, Category A, 700-2; Categories B,C, 800-2; Category D, 1000-3; Category E, 1100-3. LOC, Category D, 1000-3; Category E, 1100-3.

⁴ILS, Category A, 700-2; Categories B,C, 800-2; Category D, 1000-3. LOC, Category D, 1000-3.

⁵Category D, 1000-3.

⁶Categories A,B,C 800-5; Category D, 1000-5.

⁷NA when local weather not available.

⁸Category D, 1000-3.

⁹Categories A,B, 900-2; Category C, 900-2½; Category D, 1000-3.

PORTLAND-HILLSBORO .. **ILS or LOC Rwy 12¹**
RNAV (GPS) Rwy 12²

¹Categories A,B, 1000-2; Category C, 1000-2½; Category D, 1000-3.

²NA when local weather not available.

PORTLAND-TROUTDALE **NDB or GPS-A**
Categories A,B, 1100-2; Category C, 1100-3;
Category D, 1300-3.

PULLMAN/MOSCOW, WA

PULLMAN/MOSCOW

MUNI **RNAV (GPS) Rwy 5,800-2½**

RAWLINS, WY

RAWLINS MUNI/

HARVEY FIELD **NDB or GPS-A¹**
VOR or GPS Rwy 22,1000-3²

¹Category D, 1000-3.

²NA when Rawlins FSS closed.

NAME ALTERNATE MINIMUMS

REDMOND, OR

ROBERTS FIELD **ILS or LOC Rwy 22¹**
VOR/DME Rwy 22²

¹ILS, LOC, Category D, 800-2½; Category E, 800-2½.

²Category A, B, 1000-2; Category C, 1000-2½; Category D, E, 1000-3.

RENTON, WA

RENTON MUNI **NDB Rwy 16¹**
RNAV (GPS) Y Rwy 16²
RNAV (GPS) Z Rwy 16³

NA when local weather not available.

¹Categories A, B, 1000-2; Categories C, D, 1000-3.

²Categories A, B, 900-2; Category C, 900-2½; Category D, 900-3.

³Categories A, B, 900-2.

REXBURG, ID

REXBURG-MADISON
COUNTY **RNAV (GPS) Rwy 35**
NA when local weather not available.
Category D, 800-2½.

RICHLAND, WA

RICHLAND **NDB Rwy 19¹**
RNAV (GPS) Rwy 19¹
RNAV (GPS) Rwy 26¹
VOR/DME-A²
VOR Rwy 26¹

¹Category D, 800-2½.

²Categories A, B, 900-2; Category C, 900-2½; Category D, 900-3.

ROCK SPRINGS, WY

ROCK SPRINGS SWEETWATER
COUNTY **VOR-B**
Category D, 800-2½.

ROSEBURG, OR

ROSEBURG RGNL **RNAV (GPS)-B**
NA when local weather not available.
Categories A, B, 1200-2; Category C, 1200-3;
Category D, 1400-3.

SALEM, OR

MCNARY FIELD **ILS or LOC Rwy 31¹²**
LOC/DME Rwy 31³
RNAV (GPS) Rwy 31¹³

¹NA when local weather not available.

²ILS, Categories A, B, 800-2; Category C, 800-2½; Category D, 800-2½. LOC, Category C, 800-2½; Category D, 800-2½.

³Category D, 800-2½.

NAME ALTERNATE MINIMUMS

SCAPPOOSE, OR

SCAPPOOSE INDUSTRIAL
AIRPARK **VOR/DME or GPS-A**
Category B, 900-2; Category C, 1000-2½;
Category D 1300-3.

SEATTLE, WA

BOEING FIELD-KING COUNTY
INTL **ILS Rwy 13R¹**
ILS Rwy 31L²
LOC/DME Rwy 13R³
RNAV (GPS) Y Rwy 13R⁴
RNAV (RNP) Z Rwy 13R⁵

¹ILS, Category A, 800-2; Category B, 900-2;
Category C, 900-2½; Category D, 1000-3.

²Category A, 800-2; Category B, 900-2;
Category C, 900-2½; Category D, 1000-3.

³Category B, 900-2; Category C, 900-2½;
Category D, 1000-3.

⁴Category B, 900-2; Category C, 900-2½;
Category D, 1000-3.

⁵Categories A, B, C, D, 800-2½.

SHERIDAN, WY

SHERIDAN
COUNTY **ILS or LOC/DME Rwy 32**
RNAV (GPS) Rwy 14
RNAV (GPS) Rwy 32
VOR Rwy 14

NA when local weather not received.
Category D, 800-2½.

SIDNEY, MT

SIDNEY-RICHLAND MUNI **NDB Rwy 1¹**
NDB Rwy 19²

¹Category D, 800-2½.

²Categories C, D, 800-2½.

SPOKANE, WA

FELTS FIELD **ILS/DME Rwy 21R¹**
RNAV (GPS)-A²
RNAV (GPS) Rwy 3L²
VOR Rwy 3L³

¹Categories A, B, 1000-2; Category C, 1000-2½.

²Categories A, B, 1000-2; Category C, 1000-2½; Category D, 1000-3.

³Categories A, B, 1000-2; Categories C, D, 1000-3

SPOKANE INTL **ILS or LOC Rwy 3¹**
ILS or LOC/DME Rwy 21¹
VOR Rwy 3²

¹ILS, Category D, 700-2.

²Category E, 800-2½.

NAME ALTERNATE MINIMUMS

TACOMA, WA

TACOMA NARROWS ILS Rwy 17¹
NDB Rwy 35¹
RNAV (GPS) Rwy 17¹²
RNAV (GPS) Rwy 35²³

¹NA when control tower closed.

²Category D, 800-2½.

³NA when local weather not available.

THE DALLES, OR

COLUMBIA GEORGE RGNL/

THE DALLES MUNI RNAV (GPS)-A
Categories A,B, 1100-2; Category C, 1100-3;
Category D, 1200-3.

TWIN FALLS, ID

JOSLIN FIELD-MAGIC VALLEY

RGNL ILS or LOC Rwy 25¹
NDB Rwy 25
RNAV (GPS) Rwy 7
RNAV (GPS) Rwy 25
VOR Rwy 7²

NA when local weather not available.

¹ILS, Category D, 700-2; Category E, 900-3.

LOC, Category E, 900-3.

²Category C, 800-2¼; Category D, 800-2½.

WALLA WALLA, WA

WALLA WALLA RGNL ILS or LOC Rwy 20¹
NDB Rwy 20, 1000-3
RNAV (GPS) Rwy 2²³
RNAV (GPS) Rwy 16²
RNAV (GPS) Rwy 20²
VOR/DME Rwy 2²

¹ILS, LOC, Categories A,B, 1100-2; Categories C, D, 1100-3.

²Category D, 800-2½.

³NA when local weather not available.

NAME ALTERNATE MINIMUMS

WENATCHEE, WA

PANGBORN

MEMORIAL ILS Y Rwy 12, 1300-4
VOR/DME-C¹²
VOR/DME-A³

¹NA when local weather not available.

²Categories A, B, 1500-2; Categories C, D, 1500-3.

³Categories A, B, 2000-2; Categories C, D, 2000-3.

WOLF POINT, MT

L.M. CLAYTON RNAV (GPS) Rwy 11
RNAV (GPS) Rwy 29

NA when local weather not available.

WORLAND, WY

WORLAND MUNI VOR or GPS Rwy 16
Categories C,D, 800-2½.

YAKIMA, WA

YAKIMA AIR TERMINAL/

MCALLISTER FIELD ILS Y Rwy 27¹²
ILS Z Rwy 27¹³
LOC/DME BC-B¹⁴
RNAV (GPS) Y Rwy 27⁵
RNAV (GPS) Z Rwy 27⁴
VOR/DME or TACAN Rwy 27⁶
VOR-A⁷

¹NA when control tower closed.

²ILS, Categories A, B, 600-2¼; Category C, 700-2¼; Category D, 800-2¼.

³Category C, 700-2; Category D, 800-2¼

⁴Category D, 800-2¼.

⁵Category C, 800-2½; Category D, 800-2¾.

⁶Categories A, B, 1100-2; Categories C, D, 1100-3.

⁷Category C, 800-2¼; Category D, 800-2½.

RADAR INSTRUMENT APPROACH MINIMUMS

CHEYENNE, WY

Amdt 1B, MAY 8, 2008 (FAA)

ELEV 6159

CHEYENNE RGNL/JERRY OLSON FIELD

RADAR - 124.55 263.075 ▽ ▲ NA

	RWY	GS/TCH/RP	CAT	DA/ MDA-VIS	HAT/ HATH/ HAA CEIL-VIS	CAT	DA/ MDA-VIS	HAT/ HATH/ HAA CEIL-VIS
PAR	27	3.0°/55/918	ABCDE	6321/24	200 (200-½)			
ASR	9		ABC	6500-1	357 (400-1)	DE	6500-1¼	357 (400-1¼)
	27		ABC	6520/24	399 (400-½)	DE	6520/50	399 (400-1)
CIR	ALL		AB	6660-1	501 (600-1)	C	6660-1½	501 (600-1½)
			D	6720-2	561 (600-2)	E	6960-2¾	801 (900-2¾)

For inoperative MALSR increase, PAR 27 category E visibility to RVR 4000, ASR 27 category D visibility to RVR 6000 and ASR 27 category E visibility to 1½. PAR not available when ASR out of service.

GRAY AAF (KGRF), FORT LEWIS, WA (09155 USA)

ELEV 300

RADAR - (E) 128.2 139.925 239.0 317.4 ▽ ▲ NA

	RWY	GS/TCH/RP	CAT	DH/ MDA-VIS	HAT/ HATH/ HAA	CEIL-VIS
PAR ¹³	15	3.0°/55/947	ABCD	499/40	200	(200-¾)
	33 ²	3.0°/39/730	ABCD	500-¾	200	(200-¾)

¹Opr Mon-Fri 1600-0759Z++, exc federal holidays. POC DSN 357-4953 or C253-967-4953. Svc incl PAR and apch mnt of ILS and NDB. ²PAR not authorized when R6703D is active. ³Circling not authorized.

OPS 138.6

Contact Seattle approach for vectors to Final on 120.1 290.9

Missed Approach:

Rwy 15: Climb to 700, then climbing left turn to 2000 via heading 270° for RADAR vectors; or when directed by ATC, climb to 700, then climbing left turn to 2000 direct GR LOM and hold NW, RT, 147° inbound (ADF REQUIRED).

Rwy 33: Climb to 700, then climbing left turn to 2000 via heading 270° for RADAR vectors; or when directed by ATC, climb to 2000 direct GR LOM and hold NW, RT, 147° inbound (ADF REQUIRED).

LOST COMMUNICATIONS (ALL RWYS): As directed by ATC on initial contact.

RADAR INSTRUMENT APPROACH MINIMUMS**OAK HARBOR (OKH), WA**

Amdt 1A, Mar 12, 2009 (FAA)

ELEV 193**A J EISENBERG****RADAR - 118.2 285.65 ▽ ▲ NA**

	<u>RWY</u>	<u>GS/TCH/RPI</u>	<u>CAT</u>	<u>DA/ MDA-VIS</u>	<u>HAT/ HATH/ HAA</u>	<u>CEIL-VIS</u>
ASR	7		AB CD	620-1 NA	427	(500-1)
CIR	All Rwy		A B CD	620-1 660-1 NA	427 467	(500-1) (500-1)

When local altimeter setting not received, use Whidbey Island NAS altimeter setting and increase all MDAs 40 feet. Circling north of Rwy 7-25 NA at night. Visibility reduction by helicopters NA.

RADAR INSTRUMENT APPROACH MINIMUMS

WHIDBEY ISLAND NAS (KNUW), (AULT FLD) WA (09071 USN)

ELEV 47

RADAR - (E) 126.05x 126.85x 266.8x 299.6x 310.8x 322.5x 327.0x 343.75x ▽

				MDA-VIS	HAT/ HATH/ HAA	CEIL-VIS
PAR¹	RWY	GS/TCH/RPI	CAT	MDA-VIS	HAT/ HATH/ HAA	CEIL-VIS
	25 ^{2 3 10}	3.0°/40/718	ABCDE	228-½	200	(200-½)
	14 ^{5 11}	3.0°/49/947	ABCDE	139-¾	100	(100-¼)
	7	3.0°/50/961	ABCDE	125-½	100	(100-½)
	32 ^{2 10}	3.0°/34/776	ABCDE	147-¾	100	(100-¼)
W/O GS	25 ^{3 6}		ABC	480-¾	452	(500-¾)
			DE	480-1	452	(500-1)
	14 ^{7 11}		AB	340-½	301	(300-½)
			CDE	340-¾	301	(300-¾)
	7		ABCDE	300-1	275	(300-1)
	32 ^{8 10}		ABC	500-¾	453	(500-¾)
			DE	500-1	453	(500-1)
ASR	7		AB	440-1	415	(400-1)
			CD	440-1¼	415	(400-1¼)
			E	440-1½	415	(400-1½)
	14 ^{4 11}		AB	600-½	561	(600-½)
			C	600-1	561	(600-1)
			D	600-1¼	561	(600-1¼)
			E	600-1½	561	(600-1½)
	32 ^{8 11}		AB	680-½	633	(700-½)
			C	680-1¼	633	(700-1¼)
			D	680-1½	633	(700-1½)
			E	680-1¾	633	(700-1¾)
	25 ⁴		AB	760-½	732	(800-½)
			C	760-1½	732	(800-1½)
			D	760-1¾	732	(800-1¾)
			E	760-2	732	(800-2)
CIR⁹			A	780-1	733	(800-1)
			B	800-1¼	753	(800-1¼)
			C	800-2¼	753	(800-2¼)
			D	860-2¾	813	(900-2¾)
			E	1100-3	1053	(1100-3)

¹No-NOTAM MP: PAR 1600-0800Z++ Mon. ²When ALS inop, increase vis CAT ABCDE to ¾ mile.

³Caution: Trees 265' MSL, 3270' from THLD, 1647' right of RCL. ⁴When ALS inop, increase vis CAT AB to 1 mile, CAT C to 1¼ miles, CAT D to 2 miles, CAT E to 2¼ miles. ⁵When ALS inop, increase CAT ABCDE vis to ½ mile. ⁶When ALS inop, increase vis CAT ABC to 1¼ miles, CAT DE to 1½ miles. ⁷When ALS inop, increase vis CAT ABCDE to 1 mile. ⁸When ALS inop, increase vis CAT ABC to 1¼ mile, CAT DE to 1½ mile. ⁹When CIRCLING to RWY 25 or 32, increase vis CAT A to 1¼ mile. ¹⁰Amdt 2. ¹¹Amdt 1.



INSTRUMENT APPROACH PROCEDURE CHARTS



IFR TAKE-OFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

Civil Airports and Selected Military Airports

ALL USERS: Airports that have Departure Procedures (DPs) designed specifically to assist pilots in avoiding obstacles during the climb to the minimum enroute altitude, and/or airports that have civil IFR take-off minimums other than standard, are listed below. Take-off Minimums and Departure Procedures apply to all runways unless otherwise specified. Altitudes, unless otherwise indicated, are minimum altitudes in MSL.

DPs specifically designed for obstacle avoidance are referred to as Obstacle Departure Procedures (ODPs) and are described below in text, or published separately as a graphic procedure. If the (Obstacle) DP is published as a graphic procedure, its name will be listed below, and it can be found in either this volume (civil), or a separate Departure Procedure volume (military), as appropriate. Users will recognize graphic obstacle DPs by the term "(OBSTACLE)" included in the procedure title; e.g., TETON TWO (OBSTACLE). If not assigned a SID or radar vector by ATC, an ODP may be flown without ATC clearance to ensure obstacle clearance.

Graphic DPs designed by ATC to standardize traffic flows, ensure aircraft separation and enhance capacity are referred to as "Standard Instrument Departures (SIDs)". SIDs also provide obstacle clearance and are published under the appropriate airport section. ATC clearance must be received prior to flying a SID.

CIVIL USERS NOTE: Title 14 Code of Federal Regulations Part 91 prescribes standard take-off rules and establishes take-off minimums for certain operators as follows: (1) Aircraft having two engines or less - one statute mile. (2) Aircraft having more than two engines - one-half statute mile. These standard minima apply in the absence of any different minima listed below.

MILITARY USERS NOTE: Civil (nonstandard) take-off minima are published below. For military take-off minima, refer to appropriate service directives.

NAME TAKE-OFF MINIMUMS

AFTON, WY

AFTON MUNI

DEPARTURE PROCEDURE: **Rwy 16**, Use LUNDI
DEPARTURE. **Rwy 34**, use AFTON DEPARTURE.

ALBANY, OR

ALBANY MUNI

DEPARTURE PROCEDURE: **Rwy 16**, turn right.
Rwy 34, turn left. All aircraft climb direct CVO VOR/
DME and continue climb in CVO VOR/DME holding
pattern, (E, right turns, 261° inbound) to cross CVO
VOR/DME at or above 3000.

ANACONDA, MT

BOWMAN FIELD

TAKE-OFF MINIMUMS: **Rwy 4**, std. w/min. climb of 417'
per NM to 9000, or 2800-3 for climb in visual conditions.
Rwy 16, std. w/min. climb of 321' per NM to 10200, or
2800-3 for climb in visual conditions. **Rwy 22**, NA-
obstacles. **Rwy 34**, std. w/min. climb of 369' per NM to
9100, or 2800-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 4, 34**, climbing right
turn to 10200 via heading 130° and CPN VOR/DME R-
340 to CPN VOR/DME, continue climb-in-hold to 10200
(north, left turn, 166° inbound), or for climb in visual
conditions, cross Bowman Field Airport at or above 7700
then proceed via CPN R-309 to CPN VOR/DME,
continue climb-in-hold to 10200 (north, left turn, 166°
inbound).

NAME TAKE-OFF MINIMUMS

BOWMAN FIELD(CON'T)

Rwy 16, climbing left turn to 10200 via heading 100° and
CPN VOR/DME R-335 to CPN VOR/DME, continue
climb-in-hold to 10200 (north, left turn, 166° inbound), or
for climb in visual conditions, cross Bowman Field
Airport at or above 7700 then proceed via CPN R-309 to
CPN VOR/DME, continue climb-in-hold to 10200 (north,
left turn, 166° inbound).

NOTE: **Rwy 16**, multiple trees beginning 865' from
departure end of runway, 243' left of centerline, up to 70'
AGL/5097' MSL. Rod on hangar 570' from departure
end of runway, 278' left of centerline, 54' AGL/5054'
MSL. Multiple trees beginning 787' from departure end
of runway, 165' right of centerline, up to 70' AGL/5098'
MSL. Multiple transmission lines beginning 4602' from
departure end of runway, 1664' right of centerline, 80'
AGL/5159' MSL. **Rwy 34**, multiple transmission lines
beginning 2242' from departure end of runway, 964' left
of centerline, up to 80' AGL/5159' MSL.

ARCO, ID

ARCO-BUTTE COUNTY (AOC)

AMDT 1 08157 (FAA)

TAKE-OFF MINIMUMS: **Rwy 6**, NA - Obstacles.
DEPARTURE PROCEDURE: Use JATTS
DEPARTURE.



ARLINGTON, WA**ARLINGTON MUNI**

TAKE-OFF MINIMUMS: **Rwy 11**, 600-2 or std. with a min. climb of 350' per NM to 700. **Rwy 34**, 500-2 or std. with a min. climb of 260' per NM to 700.

DEPARTURE PROCEDURE: **Rwy 11**, turn right.

Rwy 16, climb direct to WATON LOM. **Rwys 29, 34**, turn left. **All aircraft** climb direct to WATON LOM. Aircraft departing WATON LOM on bearings 150° CW 200° and bearings 260° CW 340° from WATON LOM continue climb on course. Aircraft departing WATON LOM on bearings 340° CW 150° from WATON LOM climb in holding pattern (S, left turns, 339° inbound) to 4500 then continue climb on course. Aircraft departing WATON LOM on bearings 200° CW 260° from WATON LOM climb in holding pattern (S, left turns, 339° inbound) to 1500 then continue climb on course.

ASTORIA, OR**ASTORIA RGNL**

TAKE-OFF MINIMUMS: **Rwy 8**, 800-3 or std. with a min. climb of 320' per NM to 900. **Rwy 13**, 700-2 or std. with a min. climb of 350' per NM to 800.

DEPARTURE PROCEDURE: **Rwys 8, 31**, turn left.

Rwy 13, climb runway heading to 800 then climbing right turn. **Rwy 26**, turn right. Aircraft departing northwestbound climb via AST R-290 on course.

All other aircraft climb to 1500 or above via AST R-290 then left turn to AST VOR/DME and continue climbing on course.

AUBURN, WA**AUBURN MUNI**

DEPARTURE PROCEDURE: Use AUBURN DEPARTURE.

AURORA, OR**AURORA STATE**

DEPARTURE PROCEDURE: **Rwy 17**, turn right,

thence... **Rwy 35**, turn left, thence...

...Aircraft proceeding via V23 climb on course; All others climb in UBG VOR/DME holding pattern (hold south, left turn, 003° inbound) to cross UBG VOR/DME at or above MEA/MCA for direction of flight.

NOTE: **Rwy 17**, multiple trees 31' from departure end of runway, 273' right of centerline, up to 90' AGL/270' MSL.

Multiple trees beginning 979' from departure end of runway, 247' right of centerline up to 113' AGL/316' MSL. Road 254' from departure end of runway, 350' left of centerline, 16' AGL/209' MSL. **Rwy 35**, multiple trees and road beginning 31' from departure end of runway, 163' left of centerline, up to 138' AGL/329' MSL.

Multiple trees beginning 973' from departure end of runway, 281' right of centerline, up to 58' AGL/253' MSL.

BAKER, MT**BAKER MUNI**

NOTE: **Rwy 13**, 51' derrick 2200' from departure end of runway on centerline. 100' trees south of airport, near runway, various locations. **Rwy 31**, 146' antenna on tower 4000' from departure end of runway, 1800' left of centerline. 114' rod on OL antenna 3800' from departure end of runway on centerline.

BAKER CITY, OR**BAKER CITY MUNI**

TAKE-OFF MINIMUMS: **Rwy 8**, 900-2 or std. with a min. climb of 315' per NM to 6000, (788' per min. at 150K, 1050' per min. at 200K, 1313' per min. at 250K).

Rwy 13, 1400-2 or std. with a min. climb of 310' per NM to 6000 (775' per min. at 150K, 1033' per min. at 200K, 1292' per min. at 250K). **Rwy 17, NA. Rwy 31**, 1300-2 or std. with a min. climb of 240' per NM to 6000 (600' per min. at 150K, 800' per min. at 200K, 1000' per min. at 250K). **Rwy 35**, CAT C, D 1000-2; or std. with a min. climb of 240' per NM to 6000 (600' per min. at 150K, 800' per min. at 200K, 1000' per min. at 250K).

DEPARTURE PROCEDURE: **Rwys 8, 13**, turn left.

Rwys 26, 31, 35, turn right. **All aircraft** climb direct BKE VOR/DME. Continue climb in BKE holding pattern (SE, right turns, 298° inbound) to cross BKE VOR/DME at or above MCA or MEA for route of flight.

BELLINGHAM, WA**BELLINGHAM INTL**

DEPARTURE PROCEDURE: **Rwy 16**, climb heading 160° to 600, then climbing right turn direct HUH VORTAC. Do not exceed 210 KIAS until established northbound. **Rwy 34**, climb heading 340° to 600, then climbing left turn to intercept HUH R-145 to HUH VORTAC, continue climb in holding pattern (northwest, right turn, 149° inbound) to MEA as appropriate for direction of flight.

NOTE: **Rwy 16**, lighted windsock 9' from departure end of runway, 259' right of centerline, 16' AGL/181' MSL.

Multiple trees beginning 747' from departure end of runway, 405' right of centerline, up to 68' AGL/213' MSL.

Multiple trees beginning 1128' from departure end of runway, 57' left of centerline, up to 104' AGL/249' MSL.

Rwy 34, lighted windsock 93' from departure end of runway, 516' right of centerline, 27' AGL/169' MSL. Multiple trees beginning 1372' from departure end of runway, 619' right of centerline, up to 134' AGL/246' MSL.

BEND, OR**BEND MUNI (BDN)****AMDT 4 09183 (FAA)**

DEPARTURE PROCEDURE: Use BEND DEPARTURE.

BIG PINEY, WY**MILEY MEMORIAL FIELD**

TAKE-OFF MINIMUMS: **Rwys 8, 26**, NA.

DEPARTURE PROCEDURE: **Rwy 13**, climb to 8400 via BPI R-124. **Rwy 31**, climb to 10800 via BPI R-320 thence all aircraft climb on course.

BILLINGS, MT

BILLINGS LOGAN INTL (BIL)
AMDT 5 08101 (FAA)

TAKE-OFF MINIMUMS: **Rwy 10R**, NA- Obstacles.
DEPARTURE PROCEDURE: **Rwy 10L**, Climb heading
098° to 4600 before turning right.

NOTE: **Rwy 10L**, fence 466' from departure end of
runway, 535' right of centerline, 11' AGL/3511' MSL,
cars on road, beginning from 624' from departure end of
runway, 427' right of centerline, 15' AGL/3523' MSL,
ground beginning 21' from departure end of runway, 499'
right of centerline, 0' AGL/3505' MSL. **Rwy 25**, airport
security fence, abeam departure end of runway, 500' left
of centerline, 11' AGL/3672' MSL to 1200' from
departure end of runway, abeam rwy centerline, 11' AGL/
3672' MSL.

BLACKFOOT, ID

MCCARLEY FIELD

DEPARTURE PROCEDURE: **Rwy 1**, climb to 7000 (or
higher assigned altitude) direct IDA VOR/DME, before
proceeding on course. **Rwy 19**, climb to 7000 (or higher
assigned altitude) direct PIH VORTAC, before
proceeding on course.

BOISE, ID

BOISE AIR TERMINAL (GOWEN FIELD)

DEPARTURE PROCEDURE: **Rwys 28L, 28R**, turn left
Rwys 10L, 10R, turn right. Climb on BOI R-214 within
20 NM to cross BOI VORTAC at or above MEA/MCA
for direction of flight.

BOZEMAN, MT

GALLATIN FIELD (BZN)
AMDT 3 08213 (FAA)

TAKE-OFF MINIMUMS: **Rwys 3, 21**, NA-ATC.
DEPARTURE PROCEDURE: **Rwys 12, 30**, use
BOZEMAN DEPARTURE.

BREMERTON, WA

BREMERTON NATIONAL (PWT)
AMDT 3 08045 (FAA)

TAKE-OFF MINIMUMS: **Rwy 1**, 300-1 or std. w/ min.
climb of 410' per NM to 700.
DEPARTURE PROCEDURE: **Rwy 1**, Climbing right
turn to 6000 direct CAN NDB, Thence... **Rwy 19**, Climb
to 6000 direct CAN NDB, thence...
...Continue climb-in-hold (S, LT, 013° inbound) to 6000
before proceeding on course.
NOTES: **Rwy 1**, Multiple bushes 380' from departure end
of runway, 522' left of centerline, up to 17' AGL/456'
MSL, multiple trees and poles beginning 1210' from
departure end of runway, 622' left of centerline, up to 100'
AGL/561' MSL, multiple trees and bushes 1012' from
departure end of runway, 708' right of centerline, up to
100' AGL/495' MSL. **Rwy 19**, Multiple trees beginning
176' from departure end of runway, 337' left of centerline,
up to 100' AGL/514' MSL, multiple trees beginning 371'
from departure end of runway, 277' right of centerline, up
to 100' AGL/548' MSL.

BUFFALO, WY

JOHNSON COUNTY

TAKE-OFF MINIMUMS: Northbound aircraft:

Rwys 13, 31, 2400-2 or std. with a min. climb of 300' per
NM to 7500. Southbound aircraft: **Rwy 31**, 400-2 or std.
with a min climb of 300' per NM to 6000.

DEPARTURE PROCEDURE: Northbound aircraft:

Rwy 13, turn left. **Rwy 31**, climb straight ahead.

All aircraft proceed via SHR R-139 to SHR VORTAC.

Southbound aircraft: **Rwy 13**, climb straight ahead.

Rwy 31, turn right. **All aircraft** proceed via CZI R-319 to
CZI VOR/DME.

BURLEY, ID

BURLEY MUNI

TAKE-OFF MINIMUMS: **All runways**, cross departure
end of runway at or above 35' AGL.

DEPARTURE PROCEDURE: **All runways**, climb direct
BURLEY (BYI) VOR/DME. Continue climb on R-305
within 10 miles to cross BYI VOR/DME: R-024 CW
R-054 at or above 5500; R-055 CW R-240 at or above
8000; R-241 CW R-023 at or above 5900.

NOTE: **Rwy 2**, bridge 252' from departure end of runway,
513' left of centerline, 110' AGL/4195' MSL. Stack 2205'
from departure end of runway, 857' right of centerline,
79' AGL/4236' MSL. Elevator 4092' from departure end
of runway, 297' right of centerline, 133' AGL/4283' MSL.
Rwy 20, antenna 523' from departure end of runway, 338'
right of centerline, 43' AGL/4217' MSL. **Rwy 24**, tree
630' from departure end of runway, 521' right of
centerline, 41' AGL/4215' MSL. Grain elevator 3106'
from departure end of runway, 163' left of centerline,
137' AGL/4317' MSL.

BURLINGTON/MOUNT VERNON, WA

SKAGIT RGNL (BVS)

ORIG-A 08297 (FAA)

TAKE-OFF MINIMUMS: **Rwy 4**, 3000-2 or std. with a
min. climb of 340' per NM to 3600. **Rwy 10**, 1700-2 or
std. with a min. climb of 245' per NM to 2300. **Rwy 22**,
1300-2 or std. with a min. climb of 210' per NM to 1800.

DEPARTURE PROCEDURE: **Rwys 4, 10, 22**, turn right
heading 280°. **Rwy 28**, climb runway heading.

All aircraft climb to 2500 then turn right direct BVS NDB
to cross BVS at or above 4500. Aircraft departing on
BVS R-145 CW R-330 climb on course. All others
continue climbing in BVS holding pattern (NW, right
turns 113° inbound) to cross BVS at or above 6800
before proceeding on course.

NOTE: **Rwy 4**, tree 2581' from departure end of runway,
426' left of centerline, 100' AGL/212' MSL. Light pole
1489' from departure end of runway, 136' left of
centerline 35' AGL/137' MSL. Bush 126' from departure
end of runway, 430' right of centerline, 20' AGL/101'
MSL. Building 2925' from departure end of runway, 130'
left of centerline, 60' AGL/180' MSL.

BURNS, OR**BURNS MUNI**

DEPARTURE PROCEDURE: **Rwy 3**, climbing right turn, thence... **Rwy 12**, climb to 4600 via heading 117°, thence... **Rwys 21, 30**, climbing left turn, thence...

...All aircraft departing on ILR R-072 CWR-209, climb on course. All others climb on ILR R-123 within 10 NM to cross ILR VOR/DME at or above 5000.

NOTE: **Rwy 21**, pole 820' from departure end of runway, 357' left of centerline, 20' AGL/4169' MSL.

BUTTE, MT**BERT MOONEY**

TAKE-OFF MINIMUMS: **Rwy 11**, NA-obstacles. **Rwy 15**, std. w/min. climb of 601' per NM to 7300, or 3300-3 for climb in visual conditions. **Rwy 29**, std. w/min. climb of 832' per NM to 6700, or 3300-3 for climb in visual conditions. **Rwy 33**, std. w/min. climb of 355' per NM to 6800, or 3300-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 15**, climbing right turn direct CPN VOR/DME, or for climb in visual conditions: Cross Bert Mooney Airport westbound at or above 8800 then proceed direct CPN VOR/DME, thence... **Rwy 29**, climb heading 293° to intercept CPN VOR/DME R-082 to CPN VOR/DME, or for climb in visual conditions: Cross Bert Mooney Airport westbound at or above 8800 then proceed direct CPN VOR/DME, thence... **Rwy 33**, climb direct CPN VOR/DME, or for climb in visual conditions: Cross Bert Mooney Airport westbound at or above 8800 then proceed direct CPN VOR/DME, thence...

...climb in CPN VOR/DME holding pattern (hold north, left turn, 166° inbound) to cross CPN VOR/DME at or above MEA before proceeding enroute.

NOTE: **Rwy 15**, multiple trees beginning 2 NM from departure end of runway, 1779' right of centerline, up to 100' AGL/6659' MSL. Tree 2.1 NM from departure end of runway, 66' left of centerline, 100' AGL/5934' MSL. **Rwy 29**, multiple trees and poles beginning 364' from departure end of runway, 7' right of centerline, up to 100' AGL/5621' MSL. Multiple trees and lights beginning 322' left of centerline, up to 100' AGL/5582' MSL. Terrain and numerous trees beginning 1.2 NM from departure end of runway, 1022' left of centerline, up to 100' AGL/6379' MSL. **Rwy 33**, flag pole 1095' from departure end of runway, 730' left of centerline, 64' AGL/5583' MSL.

CALDWELL, ID**CALDWELL INDUSTRIAL**

TAKE-OFF MINIMUMS: **Rwy 12**, std. with a min. climb of 300' per NM to 5600, or 2400-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 12**, climb via heading 119° to 5600 before proceeding on course. For climb in visual conditions: Cross Caldwell Industrial Airport at or above 4800 before proceeding on course. **Rwy 30**, climb via heading 299° to 4400 before proceeding on course.

NOTE: **Rwy 12**, levee 198' from departure end of runway, 281' left of centerline, 0' AGL/2451' MSL. Multiple trees 1462' from departure end of runway, 877' right of centerline, up to 100' AGL/2505' MSL. **Rwy 30**, multiple poles 206' from departure end of runway, 389' right of centerline, up to 39' AGL/2457' MSL. Rod 353' from departure end of runway, 246' right of centerline, 21' AGL/2439' MSL.

CASPER, WY**CASPER/NATRONA COUNTY INTL (CPR)
AMDT 3A 09155 (FAA)**

DEPARTURE PROCEDURE: **Rwys 3, 8, 12**, turn left.

All other runways, turn right. All aircraft climb direct DDY VORTAC before proceeding on course, or comply with published Casper SIDs.

CHEHALIS, WA**CHEHALIS-CENTRALIA**

DEPARTURE PROCEDURE: **Rwy 16**, climb to 1000 via heading 160° then climbing left turn to 4000 via heading 001° and OLM R-151 to OLM VORTAC before proceeding on course. **Rwy 34**, climb to 4000 via heading 340° and OLM R-176 to OLM VORTAC before proceeding on course.

CHEYENNE, WY**CHEYENNE RGNL/JERRY OLSON FIELD**

NOTE: **Rwy 13**, multiple trees beginning 74' from departure end of runway, 115' left of centerline, up to 40' AGL/6166' MSL. Multiple trees, pole, and fence beginning 34' from departure end of runway, 167' right of centerline, up to 40' AGL/6154' MSL. **Rwy 27**, multiple trees and poles beginning 525' from departure end of runway, 271' left of centerline, up to 40' AGL/6216' MSL. Multiple trees and poles beginning 1222' from departure end of runway, 275' right of centerline, up to 40' AGL/6211' MSL. **Rwy 31**, multiple trees, road, fence and sign beginning 196' from departure end of runway, 76' left of centerline, up to 40' AGL/6238' MSL. Multiple poles and sign beginning 407' from departure end of runway, 8' left of centerline, up to 69' AGL/6229' MSL.

CODY, WY**YELLOWSTONE RGNL**

TAKE-OFF MINIMUMS: **Rwy 4**, 1500-2 or std. with a min. climb of 250' per NM to 6800. **Rwy 22**, 1600-2 or std. with a min. climb of 340' per NM to 6200.

DEPARTURE PROCEDURE: **Rwys 4, 22**, turn left.

All aircraft climb direct COD VOR/DME. Climb in COD VOR/DME holding pattern (N, left turn, 189° inbound) to cross COD VOR/DME at or above: COD R-350 CWR-170, 6000; or R-171 CWR R-349, 11800.

COEUR D'ALENE, ID**COEUR D'ALENE-PAPPY BOYINGTON FLD**

TAKE-OFF MINIMUMS: **Rwy 5**, CAT A,B, 1700-2 or std. with a min. climb of 230' per NM to 4000. CAT C,D, 2600-2 or std. with a min. climb of 320' per NM to 5400.

DEPARTURE PROCEDURE: **Rwys 1, 5**, turn left, climb via COE R-005 to 5400, reverse course, continue climb direct COE VOR. **Rwy 19**, turn right. **Rwy 23**, turn left, climb via COE R-232 to 5000, reverse course, continue climb direct COE VOR.

COLSTRIP, MT**COLSTRIP (M46)****AMDT 2 08157 (FAA)**

TAKE-OFF MINIMUMS: **Rwy 6** use CISP (RNAV)

DEPARTURE. **Rwy 24**, use CONUK (RNAV)

DEPARTURE.

CONRAD, MT**CONRAD**

DEPARTURE PROCEDURE: **Rwy 24**, climb runway heading to 4300, then continue climb on course.

CORVALLIS, OR**CORVALLIS MUNI**

TAKE-OFF MINIMUMS: **Rwys 9, 17, 35**, std. with a min. climb of 290' per NM to 3100 or 1700-3 for climb in visual conditions. **Rwy 27**, std. with a min. climb of 310' per NM to 3100 or 1700-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 9, 17**, climbing left turn direct CVO VOR/DME, thence...or, climb in visual conditions to cross CVO VOR/DME at or above 3400.

Rwys 27, 35, climbing right turn direct CVO VOR/DME, thence...or, climb in visual conditions to cross CVO VOR/DME at or above 3400.

...climb in CVO VOR/DME holding pattern (E, RT, 261° inbound) to depart at or above 3400.

NOTE: **Rwy 9**, multiple trees and railroad beginning 549' from departure end of runway, 254' left of centerline, up to 153' AGL/383' MSL. Multiple trees and railroad beginning 670' from departure end of runway, 5' right of centerline, up to 135' AGL/380' MSL. **Rwy 27**, obstruction light on glideslope 409' from departure end of runway, 325' left of centerline, 28' AGL/273' MSL.

Rwy 35, multiple trees beginning 470' from departure end of runway, 544' left of centerline up to 36' AGL/276' MSL.

COWLEY/LOVELL/BYRON, WY**NORTH BIG HORN COUNTY**

DEPARTURE PROCEDURE: **Rwys 9, 27**, aircraft departing via HCY NDB bearings 130° CW 225° climb on course, all others climb in HCY NDB holding pattern (W, right turns, 078° inbound) to cross HCY NDB at or above 9000.

DEER PARK, WA**DEER PARK**

TAKE-OFF MINIMUMS: **Rwy 4**, 3000-2 or std. with a min. climb of 360' per NM to 5600.

DEPARTURE PROCEDURE: **Rwy 16**, climb runway heading; **Rwy 22**, climbing left turn to heading 130°; **Rwys 4, 34**, climbing right turn to heading 210°; **All aircraft** intercept and continue climb via the 170° bearing from DPY NDB to intercept GEG R-006 to GEG VORTAC.

DILLON, MT**DILLON**

TAKE-OFF MINIMUMS: **Rwys 3, 21**, NA.

DEPARTURE PROCEDURE: **Rwys 16, 34**, turn right, climb in DLN VOR/DME holding pattern (N, right turns, 185° inbound) to cross DLN VOR/DME at or above; northwesterly V257 8500; southwestbound V121 8500; northbound V21 7600; southeastbound V21, V257 9400.

DOUGLAS, WY**CONVERSE COUNTY**

TAKE-OFF MINIMUMS: **Rwy 5**, 300-2 or std. with a min. climb of 250' per NM to 5200. **Rwy 23**, 1700-3 or std. with a min. climb of 260' per NM to 7200.

DEPARTURE PROCEDURE: **Rwy 5**, climbing right turn via IIP VOR/DME R-342 to IIP VOR/DME. **Rwy 11**, climbing right turn via IIP VOR/DME R-312 to IIP VOR/DME. **Rwy 23**, climbing left turn via IIP VOR/DME R-264 to IIP VOR/DME. **Rwy 29**, climbing right turn via IIP VOR/DME R-325 to IIP VOR/DME. **All aircraft** departing IIP R-253 CW R-180 climb on course. All others continue climb in IIP VOR/DME holding pattern (NW, left turns, 125° inbound) to cross IIP VOR/DME at or above: R-181 CW R-199 9600; R-200 CW R-252 8000.

NOTE: **Rwy 5**, trees 1883' from departure end of runway, 549' right of centerline, 35' AGL/5014' MSL. Trees 3407' from departure end of runway, 209' right of centerline, 35' AGL/5074' MSL. Trees 5458' from departure end of runway, 1954' right of centerline, 35' AGL/5132' MSL. **Rwy 23**, trees 2068' from departure end of runway, 1008' left of centerline, 35' AGL/4994' MSL. Trees 3130' from departure end of runway, 1215' left of centerline, 35' AGL/5014' MSL.

DRIGGS, ID**DRIGGS-DEED MEMORIAL (DIJ)**

AMDT 2 08157 (FAA)

DEPARTURE PROCEDURE: Use LAMON DEPARTURE.

EASTSOUND, WA**ORCAS ISLAND (ORS)**

AMDT 1 09351 (FAA)

TAKE-OFF MINIMUMS: **Rwy 16**, NA-Terrain. **Rwy 34**, 500-3 or std. w/ min. climb of 224' per NM to 600.

DEPARTURE PROCEDURE: **Rwy 34**, climbing right turn to 2000 to intercept HUH VORTAC R-210 to HUH VORTAC, then climb-in-hold (hold South, Left turns, 352° inbound) to cross HUH VORTAC at or above 3800 before proceeding on course.

NOTE: **Rwy 34**, trees beginning 330' from DER, 411' left of centerline, up to 120' AGL/139' MSL.

ELLENSBURG, WA**BOWERS FIELD**

TAKE-OFF MINIMUMS: **Rwys 7, 11**, 4600-3 or std. with a min. climb of 290' per NM to 7800. **Rwy 25**, 4700-3 or std. with a min. climb of 340' per NM to 7800. **Rwy 29**, 4600-3 or std. with a min. climb of 320' per NM to 7800.

DEPARTURE PROCEDURE: **Rwys 7, 29**, climbing right turn direct ELN VORTAC. **Rwys 11, 25**, climbing left turn direct ELN VORTAC. **All aircraft**, continue climbing in the ELN VORTAC holding pattern (W, right turns, 087° inbound) to MEA/MOCA for route of flight.

EPHRATA, WA**EPHRATA MUNI (EPH)**

AMDT 3 09127 (FAA)

TAKE-OFF MINIMUMS: **Rwy 29**, NA-Obstacles. DEPARTURE PROCEDURE: **Rwy 3**, climb heading 027° to 2300 before proceeding on course. **Rwy 11**, climb heading 112° to 2200 before proceeding on course. **Rwy 21**, climb heading 207° to 2800 before proceeding on course.

EUGENE, OR

MAHLON SWEET FIELD

DEPARTURE PROCEDURE: **Rwys 16L, 16R**, climb to 1000 then climbing right turn...**Rwys 34L, 34R**, climb to 1000 then climbing left turn...

...all aircraft climb direct EUG VORTAC, then climb in EUG VORTAC holding pattern (hold north, right turn, 175° inbound) to cross EUG VORTAC at or above MEA altitude before proceeding enroute.

NOTE: **Rwy 16R**, tree 1992' from departure end of runway, 832' left of centerline, 50' AGL/419' MSL. **Rwy 16L**, multiple trees and power poles beginning 872' from departure end of runway, 35' right of centerline, up to 50' AGL/437' MSL, multiple trees and power poles beginning 890' from departure end of runway, 77' left of centerline, up to 50' AGL/433' MSL. **Rwy 34R**, multiple trees beginning 2869' from departure end of runway, 186' right of centerline, up to 50' AGL/447' MSL. Tree 2535' from departure end of runway, 652' left of centerline, 50' AGL/428' MSL.

EVANSTON, WY

EVANSTON-UINTA COUNTY BURNS FIELD

DEPARTURE PROCEDURE: **Rwy 5**, climb via heading 050° and FBR VOR/DME R-243 to FBR VOR/DME. **Rwy 23**, climbing left turn via heading 030° and FBR VOR/DME R-243 to FBR VOR/DME.

All aircraft: cross FBR VOR/DME at or above MEA for direction of flight.

EVERETT, WA

SNOHOMISH COUNTY (PAINE FIELD)

TAKE-OFF MINIMUMS: **Rwy 29**, std. with a min. climb of 353' per NM to 800.

DEPARTURE PROCEDURE: **Rwys 11, 16L/R**, climbing right turn, thence...**Rwys 29, 34L/R**, climbing left turn, thence...

...for aircraft departing via V287 west bound, climb via PAE VOR/DME R-236 to 3000. All others, climb direct PAE VOR/DME, climb in PAE VOR/DME holding pattern (NW, RT, 149° inbound) to MEA for route of flight before proceeding on course.

NOTE: **Rwy 11**, multiple antennas on building, rod on obstruction light, and trees beginning 326' from departure end of runway, 387' right of centerline, up to 85' AGL/664' MSL. Tree 1156' from departure end of runway, 600' left of centerline, 93' AGL/672' MSL. **Rwy 16L**, multiple trees and pole beginning 588' from departure end of runway, 220' left of centerline, up to 118' AGL/697' MSL. Multiple trees, pole, and building beginning 449' from departure end of runway, 162' right of centerline, up to 78' AGL/657' MSL. **Rwy 16R**, multiple trees beginning 1228' from departure end of runway, 168' left of centerline, up to 140' AGL/699' MSL. Multiple trees beginning 707' from departure end of runway, 158' right of centerline, up to 118' AGL/687' MSL. **Rwy 29**, multiple trees beginning 45' from departure end of runway, 66' left of centerline, up to 111' AGL/630' MSL. Multiple trees beginning 343' from departure end of runway, 44' right of centerline, up to 110' AGL/689' MSL. **Rwy 34R**, multiple trees and pole beginning 3340' from departure end of runway, 180' right of centerline, up to 95' AGL/674' MSL. Tree 5762' from departure end of runway, 221' left of centerline, 103' AGL/682' MSL.

FAIRCHILD AFB (KSKA)

SPOKANE, WA ORIG, 08017

DEPARTURE PROCEDURES: **Rwy 5**, climb on track 048° to intercept SKA R-045 to 5300, then on course. **Rwy 23**, climb on track 241° to 3400, then on course.

TAKE-OFF OBSTACLES: **Rwy 23**, Terrain 2468' MSL, 194' from DER, 405' right of centerline. Terrain 2477' MSL, 461' from DER, 751' right of centerline. Terrain 2477' MSL, 509' from DER, 750' right of centerline.

FORT BENTON, MT

FORT BENTON

TAKE-OFF MINIMUMS: **Rwys 5, 23**, std. w/ min. climb of 274' per NM to 8900 or 5100-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 5, 23**, for climb in visual conditions: Cross Fort Benton Airport at or above 8900 MSL before proceeding on course.

FORT BRIDGER, WY

FORT BRIDGER

DEPARTURE PROCEDURE: **All aircraft** climb direct FBR VOR/DME. Aircraft departing: FBR R-210 CW R-135 climb on course; FBR R-136 CW R-209 cross FBR VOR/DME at or above 9000. (Hold NE, right turns, 215° inbound).

FRIDAY HARBOR, WA

FRIDAY HARBOR

TAKE-OFF MINIMUMS: **Rwy 34**, 500-1.

DEPARTURE PROCEDURE: Aircraft departing FHR NDB **Rwy 34**, climbing right turn direct FHR NDB, then climb on course. All other aircraft climb on course.

GILLETTE, WY

GILLETTE-CAMPBELL COUNTY (GCC)

AMDT 4 09071 (FAA)

TAKE-OFF MINIMUMS: **Rwy 16**, std. w/ min. climb of 275' per NM to 5600, or 1200-3 for climb in visual conditions. **Rwy 21**, 600-3 or std. w/ min. climb of 425' per NM to 5200.

DEPARTURE PROCEDURE: **Rwy 16**, climb via heading 158° to 5100, before proceeding on course or, for climb in visual conditions cross Gillette-Campbell County airport at or above 5400 before proceeding on course. **Rwy 21**, climb via heading 206° to 5200, before proceeding on course.

NOTE: **Rwy 3**, windsock 1415' from DER, 100' left of centerline, 24' AGL/4366' MSL. Trees beginning 1976' from DER, 267' right of centerline, up to 30' AGL/4409' MSL. **Rwy 16**, tower and poles beginning 1.61 NM from DER, 1264' left of centerline, up to 57' AGL/4696' MSL. Post and trees beginning 1.77 NM from DER, 300' right of centerline, up to 51' AGL/4789' MSL. **Rwy 21**, fence 328' from DER, 267' left of centerline, 7' AGL/4352' MSL, trees 2077' from DER, 1011' right of centerline, 30' AGL/4449' MSL, tree 7029' from DER, 2378' right of centerline, 30' AGL/4729' MSL. **Rwy 34**, fence 1236' from DER, 723' left of centerline, 16' AGL/4380' MSL. Vehicle on road 1609' from DER, 419' left of centerline, 15' AGL/4394' MSL. Trees 3093' from DER, 936' right of centerline, 30' AGL/4449' MSL. Vehicle on road 1610' from DER, 419' left of centerline, 15' AGL/4380' MSL.

**GOODING, ID**

GOODING MUNI (GNG)

ORIG 08269 (FAA)

DEPARTURE PROCEDURE: **Rwy 7**, climb heading 068° to 5000 before turning left. **Rwy 25**, climb heading 233° to 5600 before turning right.

NOTE: **Rwy 7**, rising terrain 59' from departure end of runway, 479' right of centerline, up to 3754' MSL. Fence line 653' from departure end of runway, 332' right of centerline, 12' AGL up to 3751' MSL. Bushes starting 877' from departure end of runway, 420' right of centerline, 20' AGL up to 3795' MSL. **Rwy 25**, vehicle on road, 91' from departure end of runway, 257' left of centerline, up to 10' AGL/3678' MSL.

GRANGEVILLE, ID

IDAHO COUNTY (S80)

AMD T 1 08157 (FAA)

TAKE-OFF MINIMUMS: **Rwy 7**, NA - Obstacles.

DEPARTURE PROCEDURE: **Rwy 25**, Use MELLR DEPARTURE.

GRANTS PASS, OR

GRANTS PASS

TAKE-OFF MINIMUMS: **Rwy 12**, NA. **Rwy 30**, 4000-3 or std. with a min. climb of 360' per NM to 5000.

DEPARTURE PROCEDURE: **Rwy 30**, climb via heading 320 until passing 5000, then climbing right turn direct RBG VOR/DME. Cross RBG VOR/DME at or above MEA for route of flight.

GRAY AAF (KGRF)

FORT LEWIS, WA

..... Rwy 15, 300-1*

Rwy 33, 300-1**

* Or standard with minimum climb of 430/NM to 500.
 ** Or standard with minimum climb of 380/NM to 600.

Rwy 15 climb runway heading to 700 then climbing left turn direct GR LOM. Rwy 33 climb runway heading direct GR LOM. Aircraft departing 330° CW 070° and 135° CW 260° bearing from GR LOM climb on course. All others continue climb in GR holding pattern (Hold NW, RT, 147° inbound) to cross GR LOM at or above: 071° CW 134° bearing from GR LOM, 8500; 261° CW 329° bearing from GR LOM, 1500.

GREAT FALLS, MT

GREAT FALLS INTL

NOTE: **Rwy 7**, obstruction light on lighted wind sock 237' from departure end of runway, 519' left of centerline, 34' AGL/3694' MSL. Obstruction light on building 2226' from departure end of runway, 614' left of centerline, 78' AGL/3738' MSL. Building on 681' from departure end of runway, 583' right of centerline, 48' AGL/3688' MSL. Multiple light poles beginning 1359' from departure end of runway, 440' right of centerline, up to 90' AGL/3746' MSL. **Rwy 21**, pole 1544' from departure end of runway, 791' left of centerline, 45' AGL/3725' MSL. **Rwy 25**, windmill 2.3 NM from departure end of runway, 4197' right of centerline, 338' AGL/4003' MSL.

GREYBULL, WY

SOUTH BIG HORN COUNTY (GEY)

ORIG-A 09239 (FA)

TAKE-OFF MINIMUMS: **Rwy 25**, 300-1 or std. w/ min. climb of 260' per NM to 4200.

DEPARTURE PROCEDURE: **All runways**, for departures on Gey bearings 320° CW 150°, climb in Gey NDB holding pattern to 9000 before departing on course, then continue climb to MEA or assigned altitude. Departures Gey bearings 150° CW 320° climb on course.

NOTE: **Rwy 25**, bush 4955' from DER, 1268' right of centerline, 2' AGL/4101' MSL.

GUERNSEY, WY

CAMP GUERNSEY

TAKE-OFF MINIMUMS: **Rwy 14**, 300-1 or std. with a min. climb of 320' per NM to 4700. **Rwy 32**, 1400-2 or std. with a min. climb of 320' per NM to 5800.

DEPARTURE PROCEDURE: **Rwy 14**, climb to 5600 via heading 150°. **Rwy 32**, climb to 5800 via heading 070°.

All aircraft continue on course.

HAILEY, ID

FRIEDMAN MEMORIAL

TAKE-OFF MINIMUMS: **Rwy 13**, 2700-3 w/ min. climb of 307' per NM to 6400, or 3600-3 for climb in visual conditions. **Rwy 31**, NA-obstacles.

DEPARTURE PROCEDURE: **Rwy 13**, Climbing right turn heading 149°, then on 160° course to HLE NDB, or for climb in visual conditions: cross Friedman Memorial Airport at or above 8800 heading 151°, then on 151° course to HLE NDB.

NOTE: **Rwy 13**, multiple trees beginning 763' from departure end of runway, 3' right of centerline, up to 100' AGL/5345' MSL. Multiple trees beginning 1.3 NM from departure end of runway, 2587' right of centerline, up to 100' AGL/6099' MSL.

HAMILTON, MT

RAVALLI COUNTY

DEPARTURE PROCEDURE: Use HAMEY RNAV DEPARTURE.



HAVRE, MT

HAVRE CITY-COUNTY (HVR)

AMDT 3 09351 (FAA)

TAKE-OFF MINIMUMS: **Rwy 8**, 300-1¼ or std. w/ min. climb of 217' per NM to 3300.

DEPARTURE PROCEDURE: **Rwy 3**, climb heading 032° to 3300 then climbing left turn to 8000 direct HVR VOR/DME thence... **Rwy 8**, climb heading 077° to 3300 then climbing left turn to 8000 via HVR R-025 to HVR VOR/DME thence... **Rwy 21**, climb heading 212° to 3300 then climbing right turn to 8000 direct HVR VOR/DME thence... **Rwy 26**, climb heading 257° to 3300 then climbing right turn to 8000 direct HVR VOR/DME thence...

...continue climb in hold in HVR VOR/DME holding pattern (hold west, right turns, 094° inbound) to cross HVR VOR/DME at or above 8000 before proceeding on course.

NOTE: **Rwy 3**, pole 2682' from DER, 1044' left of centerline, 21' AGL/2680' MSL. **Rwy 8**, obstruction light on windsock 59' from DER, 224' left of centerline, 9' AGL/2588' MSL. Tree 1192' from DER, 752' left of centerline, 25' AGL/2610' MSL. Tank 1.3 NM from DER, 2287' left of centerline, 57' AGL/2797' MSL. **Rwy 26**, light on windsock, 50' from DER, 225' right of centerline, 9' AGL/2589' MSL. Trees beginning 1617' from DER, 650' right of centerline, 25' AGL/2659' MSL.

HELENA, MT

HELENA RGNL (HLN)

AMDT 9 08269 (FAA)

TAKE-OFF MINIMUMS: **Rwy 5**, 2500-3 or std. w/ min. climb of 250' per NM to 8100, or 1600-3 for climb in visual conditions. **Rwy 9**, std. w/ min. climb of 240' per NM to 8100, or 1600-3 for climb in visual conditions. **Rwy 23**, 1600-3 or std. w/ min. climb of 560' per NM to 8100, or 1600-3 for climb in visual conditions. **Rwy 27**, 1600-3 or std. w/ min. climb of 390' per NM to 8100, or 1600-3 for climb in visual conditions. **Rwys 16, 34, NA**.

DEPARTURE PROCEDURE: **Rwys 5, 9**, climbing left turn heading 270°. **Rwys 23, 27**, climbing right turn heading 020°. **All Aircraft**: continue climb northwestbound via HLN R-318 to 8100, then climbing right turn direct HLN VORTAC, cross HLN VORTAC at or above 9000, before proceeding on course, or for climb in visual conditions: cross Helena Rgnl airport northbound at or above 5300 and continue climbing via HLN R-336 to WOKEN INT before proceeding on course.

NOTE: **Rwy 5**, ground beginning 5' from departure end of runway, 495' right of centerline, up to 3826' MSL. Fence beginning 423' from departure end of runway, 331' right of centerline, up to 10' AGL/3832' MSL. **Rwy 23**, pole 2198' from departure end of runway, 462' left of centerline, 76' AGL/3996' MSL, tree 1011' from departure end of runway, 379' left of centerline, 44' AGL/3964' MSL, rod on building 953' from departure end of runway, 321' left of centerline, 323' AGL/943' MSL, tree 1519' from departure end of runway, 142' right of centerline, 53' AGL/3953' MSL. **Rwy 27**, building 1593' from departure end of runway, 731' left of centerline, 58' AGL/6385' MSL. Ground beginning 101' from departure end of runway, 346' left of centerline, up to 3871' MSL. Tree 1567' from departure end of runway, 616' left of centerline, 47' AGL/3906' MSL.

HERMISTON, OR

HERMISTON MUNI

NOTE: **Rwy 4**, tower 379' left of departure end of runway, 50' AGL/698' MSL. **Rwy 22**, light pole 456' left of departure end of runway, 44' AGL/684' MSL.

HOQUIAM, WA

BOWERMAN

TAKE-OFF MINIMUMS: **Rwy 6**, 600-2 or std. with a min. climb of 260' per NM to 600.

DEPARTURE PROCEDURE: **Rwy 6**, climbing right turn heading 110°. **Rwy 24**, climb runway heading. **All aircraft** climb to 600 continue climb on course.

HULETT, WY

HULETT MUNI (W43)

ORIG 07354 (FAA)

TAKE-OFF MINIMUMS: **Rwy 13**, std. w/ min. climb of 450' per NM to 6300, or 500-2¼ w/ min. climb of 295' per NM to 7700, or 2200-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 13**, climb to 7700 via heading 132° before proceeding on course, or climb in visual conditions: cross Hulett Muni Airport at or above 6300 before proceeding on course. **Rwy 31**, climbing right turn on a heading between 090° clockwise to 115° from departure end of runway to 7700 before proceeding on course.

NOTE: **Rwy 13**, road 398' from departure end of runway, 37' left of centerline, 15' AGL/4296' MSL, truck on road 1126' from departure end of runway, 346' right of centerline, 15' AGL/4334' MSL, trees beginning 4945' from departure end of runway, across centerline, up to 100' AGL/4657' MSL. **Rwy 31**, terrain 104' from departure end of runway, 420' left of centerline, 4200' MSL, terrain 344' from departure end of runway, 233' left of centerline, 4207' MSL.

IDAHO FALLS, ID

IDAHO FALLS RGNL (IDA)

AMDT 4 09351 (FAA)

DEPARTURE PROCEDURE: **All aircraft** departing IDA R-160 CW R-040 climb on course. **All others** climb direct IDA VOR/DME. Continue climb in IDA holding pattern (South, left turns, 019° inbound) to cross IDA VOR/DME at or above 7500 before proceeding on course.

NOTE: **Rwy 2**, pole 1039' from DER, 758' left of centerline, 42' AGL/4762' MSL. **Rwy 17**, trees, flagpole, building, light and vent on buildings, and vehicle on road beginning 29' from DER, 10' right of centerline, up to 84' AGL/4820' MSL. Trees and vent on building beginning 569' from DER, 22' left of centerline, up to 35' AGL/4760' MSL. Trees, antenna, and light poles beginning 1853' from DER, 26' right of centerline, up to 121' AGL/4851' MSL. **Rwy 35**, trees and railroad beginning 410' from DER, 503' right of centerline, up to 49' AGL/4769' MSL. Tree 1034' from DER, 715' left of centerline, 42' AGL/4762' MSL.

JACKSON, WY

JACKSON HOLE

DEPARTURE PROCEDURE: **Rwy 1**, use GEYSER DEPARTURE. **Rwy 19**, use TETON DEPARTURE.



JEROME, ID

JEROME COUNTY (JER)

AMDT 2 09295 (FAA)

TAKE-OFF MINIMUMS: **Rwy 9**, 500-1¼ or std. w/ min. climb of 435' per NM to 4700.

DEPARTURE PROCEDURE: **Rwy 9**, climb heading 086° to 5300 before proceeding on course. **Rwy 27**, climb heading 266° to 4800 before proceeding on course.

NOTE: **Rwy 9**, bush 140' from DER, 500' left of centerline, 16' AGL/4076' MSL. Poles starting 1432' from DER, 32' left of centerline, up to 47' AGL/4169' MSL. Sign 1473' from DER, 547' left of centerline, 49' AGL/4119' MSL. Obstruction light on building 1510' from DER, 6' left of centerline, 43' AGL/4103' MSL. Trees starting 1651' from DER, 100' left of centerline, up to 53' AGL/4137' MSL. Building 2186' from DER, 173' left of centerline, 29' AGL/4119' MSL. Rising terrain starting 2549' from DER, 560' left of centerline, up to 4219' MSL. AG equip 4752' from DER, 517' left of centerline, 26' AGL/4175' MSL. Poles starting 600' from DER, 254' right of centerline, up to 48' AGL/4173' MSL. **Rwy 27**, fence starting 18' from DER, 440' left of centerline, up to 9' AGL/3969' MSL.

JOHN DAY, OR

GRANT COUNTY RGNL/OGILVIE FIELD (GCD)

AMDT 1 09015 (FAA)

TAKE-OFF MINIMUMS: **Rwys 9, 17, 35**, NA, Terrain.

DEPARTURE PROCEDURE: **Rwy 27**, climbing left turn to 12000 heading 270° and IMB R-100 to IMB VORTAC, climb in IMB VORTAC holding pattern (E, right turns, 280° inbound) to cross IMB VORTAC at or above MEA for route of flight.

NOTE: **Rwy 27**, fence beginning 195' from departure end of runway, 50' right of centerline, up to 16' AGL/3665' MSL. Trees beginning 229' from departure end of runway, 261' right of centerline, up to 26' AGL/3662' MSL. Bush 389' from departure end of runway, 438' right of centerline, 20' AGL/3659' MSL.

KALISPELL, MT

GLACIER PARK INTL

DEPARTURE PROCEDURE: Use SKOTT DEPARTURE.

KELSO, WA

SOUTHWEST WASHINGTON RGNL

TAKE-OFF MINIMUMS: **Rwy 12**, NA. **Rwy 30**, 1200-2 or std. with a min. climb of 320' per NM to 1300.

DEPARTURE PROCEDURE: Departure procedure limited to CAT A, B aircraft. **Rwy 30**, climb straight ahead to 1500 then climbing right turn direct LSO NDB. Continue climb in holding pattern (N, right turns, 171° inbound) to cross LSO NDB at or above 3000 direct BTG VORTAC or MEA for route of flight.

KEMMERER, WY

KEMMERER MUNI (EMM)

AMDT 1 09239 (FAA)

TAKE-OFF MINIMUMS: **Rwys 4, 10, 22, 28**, NA - Rwy surfaces.

DEPARTURE PROCEDURE: **Rwy 16**, climb to 12000 via heading 166° and FBR VOR/DME R-330 to FBR VOR/ DME before proceeding on course. **Rwy 34**, climb via heading 346° to 8200 then climbing right turn to 12000 via heading 125° and FBR VOR/DME R-345 to FBR VOR/ DME before proceeding on course.

KLAMATH FALLS, OR

KLAMATH FALLS

TAKE-OFF MINIMUMS: **Rwy 7**, NA. **Rwy 14**, 1100-3 or std. with a min. climb of 275' per NM to 5500. **Rwy 25**, 3300-3 or std. with a min. climb of 250' per NM to 7400.

Rwy 32, 2000-3 or std. with a min. climb of 320' per NM to 6300.

DEPARTURE PROCEDURE: **Rwys 14, 25**, climb via runway heading to 6000 then climbing right turn direct LMT VORTAC, thence... **Rwy 32**, climb via runway heading to 5500 then climbing left turn direct LMT VORTAC, thence... climb in LMT holding pattern (W, right turns, 070° inbound) to cross LMT VORTAC at or above 8000.

LA GRANDE, OR

LA GRANDE/UNION COUNTY

TAKE-OFF MINIMUMS: **Rwy 12**, Cat A/B 2900-3 or std. with a min. climb of 350' per NM to 6100. Cat C/D 4500-3 or std. with a min. climb of 500' per NM to 7800.

Rwy 30, Cat A/B 2900-3 or std. with a min. climb of 350' per NM to 6100. Cat C/D 3600-3 or std. with a min. climb of 450' per NM to 6800. **Rwy 34**, 2900-3 or std. with a min. climb of 350' per NM to 6100. **Rwy 16**, 2000-3 or std. with a min. climb of 500' per NM to 5000.

DEPARTURE PROCEDURE: **Rwy 12, 16**, climbing left turn direct LGD NDB, thence; **Rwys 30, 34**, climbing right turn heading 010°, thence; **all aircraft** climb to 7000 via the 339° bearing from LGD NDB, then climbing right turn direct LGD NDB.

LAKEVIEW, OR

LAKE COUNTY

TAKE-OFF MINIMUMS: **Rwy 16**, 3700-5 or std. with a min. climb of 320' per NM to 8800. **Rwy 34**, 2500-5 or std. with a min. climb of 320' per NM to 8500.

DEPARTURE PROCEDURE: **Rwy 16**, climbing right turn via LKV R-163 to LKV VORTAC. **Rwy 34**, climbing left turn heading 320° to intercept LKV R-148 then via LKV R-148 to LKV VORTAC. **All aircraft** continue climbing in the LKV VORTAC holding pattern (NW, right turns, 148° inbound) to MEA for route of flight.

LARAMIE, WY

LARAMIE RGNL

DEPARTURE PROCEDURE: **Rwy 3**, turn left. **Rwys 12, 21**, turn right. **All aircraft** climb direct LAR VORTAC, continue climb in holding pattern (W, left turns, 107° inbound) to cross LAR VORTAC at or above: westbound V4, 10600. All others cross LAR VORTAC at or above MEA for direction of flight.



LAUREL, MT

LAUREL MUNI

TAKE-OFF MINIMUMS: **Rwys 9, 14, 27, 32**, NA.
DEPARTURE PROCEDURE: **Rwy 22**, turn left.
All aircraft climb direct BIL VORTAC.

LEWISTON, ID

LEWISTON-NEZ PERCE COUNTY

DEPARTURE PROCEDURE: **Rwys 8, 11, 26, 29**, turn left
direct MQG VOR/DME. Continue climb in holding
pattern (W, left turns, 066° inbound) to cross MQG
VOR/DME at or above 3600.

LEWISTOWN, MT

LEWISTOWN MUNI

TAKE-OFF MINIMUMS: **Rwy 2**, 1800-2 or std. with a
min. climb of 280' per NM to 6900. **Rwy 7, 12**, 900-2 or
std. with a min. climb of 220' per NM to 6200.
DEPARTURE PROCEDURE: **Rwys 2, 30** turn left.
Rwys 7, 12, 20, turn right. **Rwy 25**, climb runway
heading. **All aircraft** climb direct LWT VORTAC.
Continue climb in holding pattern (W, right turns, 094°
inbound) to MEA for route of flight.

LEXINGTON, OR

LEXINGTON

TAKE-OFF MINIMUMS: **Rwy 26**, std. with min. climb of
280' per NM to 7600, or 1600-2 ½ for climb in visual
conditions. **Rwy 8**, std. with min. climb of 490' per NM to
4200, or 1600-2 ½ for climb in visual conditions.
DEPARTURE PROCEDURE: **Rwys 8, 26**, for climb in
visual conditions: cross Lexington Airport at or above
3600.
NOTES: **Rwy 8**, trees 1.42 NM from departure end of
runway, 2386' left of centerline, 100' AGL/2159' MSL.
Trees 1.48 NM from departure end of runway, 2755' left
of centerline, 100' AGL/2179' MSL.

LIBBY, MT

LIBBY

TAKE-OFF MINIMUMS: **Rwy 33**, not authorized.
Rwy 15, use EYSE RNAV DEPARTURE.

LIVINGSTON, MT

MISSION FIELD (LVM)

AMDT 3 09071 (FAA)

TAKE-OFF MINIMUMS: **Rwys 8, 13, 26, 31**, NA-
Environmental.
DEPARTURE PROCEDURE: **Rwys 4, 22**, use
LIVINGSTON DEPARTURE.

MADRAS, OR

MADRAS MUNI (S33)

ORIG-A 09043 (FAA)

TAKE-OFF MINIMUMS: **Rwy 16**, std. w/ a min. climb of
298' per NM to 3900 or 1100-2½ for climb in visual
conditions. **Rwy 22**, std. w/ a min. climb of 281' per NM
to 3900 or 1100-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 4, 34**, climbing left
turn heading 210° and DSD R-348 to DSD VORTAC to
7000 before proceeding on course. **Rwy 16**, climbing
right turn heading 210° and DSD R-348 to DSD
VORTAC to 7000 before proceeding on course, or...
Rwy 22, climb heading 216° and DSD R-348 to DSD
VORTAC to 7000 before proceeding on course, or...
... for climb in visual conditions: cross Madras Muni at
or above 3400 MSL, then direct DSD VORTAC to 7000
before proceeding on course.

MC CALL, ID

MC CALL MUNI (MYL)

AMDT 2 09127 (FAA)

TAKE-OFF MINIMUMS: **Rwy 34**, NA-Obstacles.
DEPARTURE PROCEDURE: **Rwy 16**, use MCCALL
DEPARTURE.

MC CHORD AFB (KTCM)

TACOMA, WA 09127

DEPARTURE PROCEDURE: **Rwy 16**, Track heading
160°, turn left to intercept SEA VORTAC R-168 (V495)
to SEA 168/37.1 DME (ALDER). Cross ALDER at or
above 4000. After ALDER, maintain MEA/MOCA for
route of flight. **Rwy 34**, Track heading 340°, then turn
right to intercept SEA VORTAC R-168 (V495) to SEA
R-168/37.1 DME (ALDER). Cross ALDER at or above
4000. Maintain MEA/MOCA for route of flight.

TAKEOFF OBSTACLES: **Rwy 16**, Grove of trees 143'
AGL/454' MSL, 4892' from DER, 1353' left of centerline.
Grove of trees 102' AGL/419' MSL, 2395' from DER,
1028' right of centerline. Trees 136' AGL/447' MSL,
2867' from DER, 1261' left of centerline. Trees 120'
AGL/430' MSL, 2594' from DER, 1113' left of centerline.
Trees 85' AGL/394' MSL, 2310' from DER, 957' left of
centerline. Trees 83' AGL/392' MSL, 2006' from DER,
959' left of centerline. Trees 87' AGL/389' MSL, 1758'
from DER, 971' left of centerline. **Rwy 34**, Tree 106'
AGL/348' MSL, 2307' from DER, 1038' left of centerline.
Tree 121' AGL/370' MSL, 3190' from DER, 526' right of
centerline. Aircraft 65' AGL/317' MSL, 186' from DER,
407' left of centerline. Tree 64' AGL/343' MSL, 2260'
from DER, 1036' left of centerline. Building 40' AGL/321'
MSL, 1668' from DER, 810' left of centerline.

MC MINNVILLE, OR

MC MINNVILLE MUNI (MMV)

AMDT 4 08325 (FAA)

TAKE-OFF MINIMUMS: **Rwy 4**, 400-1¼ or std. w/ min. climb of 238' per NM to 400, or alternatively, with standard take-off minimums and normal 200'/NM climb gradient, take-off must occur no later than 2000' prior to departure end of runway. **Rwy 17**, std. w/ min. climb of 300' per NM to 1200 or 1800-2½ for climb in visual conditions. **Rwy 22**, std. w/ min. climb of 303' per NM to 1400 or 1800-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 4**, climb heading 038° to intercept UBG R-170 to UBG VOR/DME, thence ...

Rwy 17,22, climbing left turn to intercept UBG R-183 to UBG VOR/DME, thence ... or for climb in visual conditions: cross Mc Minnville Muni at or above 1800 before proceeding on course. **Rwy 35**, climb heading 347° to intercept UBG R-221 to UBG VOR/DME, thence...

... continue climb in UBG VOR/DME holding pattern (S, left turns, 003° inbound) until reaching MEA for route of flight.

NOTE: **Rwy 4**, multiple trees beginning 2040' from departure end of runway, 353' left and 209' right of centerline, up to 100' AGL/339 feet MSL. **Rwy 17**, tree 1719' from departure end of runway, 456' right of centerline, 100' AGL/231' MSL. Tree 1760' from departure end of runway, 627' left of centerline, 100' AGL/257' MSL. **Rwy 22**, multiple trees beginning 282' from departure end of runway, 120' left and 144' right of centerline, up to 100' AGL/246' MSL. Tree 4047' from departure end of runway, 1319' left of centerline, 100' AGL/284' MSL. **Rwy 35**, multiple trees beginning 1551' from departure end of runway, 229' right of centerline, up to 100' AGL/277' MSL.

MEDFORD, OR

ROGUE VALLEY INTL-MEDFORD (MFR)

AMDT 9 09015 (FAA)

TAKE-OFF MINIMUMS: **Rwys 9,27**, NA-Obstacles.

Rwy 14, std. w/ min. climb of 430' per NM to 4600, or 2900-3 for climb in visual conditions. **Rwy 32**, std. with a min. climb of 260' per NM to 6800, or 2900-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 14**, climbing right turn direct OED VORTAC, or for climb in visual conditions, cross Rogue Valley Intl airport at or above 4100 before proceeding direct OED VORTAC...

Rwy 32, climbing right turn direct OED VORTAC, or for climb in visual conditions, cross Rogue Valley Intl airport at or above 4100 before proceeding direct OED VORTAC...

...all aircraft climb in OED VORTAC holding pattern (hold NW, right turns, 153° inbound) to cross OED VORTAC at or above 6400.

MISSOULA, MT

MISSOULA INTL (MSO)

AMDT 8 08213 (FAA)

TAKE-OFF MINIMUMS: **Rwys 7,25**, NA-Obstacles.

DEPARTURE PROCEDURE: **Rwys 11, 29**, use GRZLY DEPARTURE.

MOSES LAKE, WA

GRANT COUNTY INTL

NOTE: **Rwy 14R**, antenna 3902' from departure end of runway, 828' right of centerline, 98' AGL/1268' MSL.

Rwy 18, pole 405' from departure end of runway, 334' right of centerline, 30' AGL/1209' MSL. Windsock 496' from departure end of runway, 371' left of centerline, 16' AGL/1195' MSL. **Rwy 32L**, pole 1326' from departure end of runway, 373' left of centerline, 22' AGL/1202' MSL.

MOUNTAIN HOME AFB (KMUO)

MOUNTAIN HOME, ID 07270

Rwy 12,30, 6700-3*

* Or standard with minimum climb of 270'/NM to 9100.

TAKE-OFF OBSTACLES: **Rwy 12**, Terrain 0' AGL/3028' MSL, 1224' from DER, 744' right of centerline. Terrain 0' AGL/3035' MSL, 824' from DER, 721' right of centerline. Terrain 0' AGL/3035' MSL, 507' from DER, 636' right of centerline. Terrain 0' AGL/3022' MSL, 49' from DER, 202' right of centerline. Terrain 0' AGL/3018' MSL, 148' from DER, 328' left of centerline. Terrain 0' AGL/3016' MSL, 300' from DER, 580' left of centerline. Road/Vehicle 15' AGL/3044' MSL, 1147' from DER, 794' right of centerline. Power pole 35' AGL/3069' MSL, 2914' from DER, 940' right of centerline. Tower 30' AGL/3032' MSL, 1067' from DER, 902' right of centerline. Tower 28' AGL/3039' MSL, 1172' from DER, 796' right of centerline. Tower 45' AGL/3054' MSL, 2152' from DER, 1478' left of centerline. **Rwy 30**, Terrain 0' AGL/2995' MSL, 40' from DER, 492' left of centerline. Terrain 0' AGL/2999' MSL, 370' from DER, 467' right of centerline. Terrain 0' AGL/3006' MSL, 507' from DER, 636' right of centerline. Terrain 0' AGL/3007' MSL, 570' from DER, 653' right of centerline. Road/Vehicle 35' AGL/3019' MSL, 954' from DER, 773' left of centerline.

MOUNTAIN HOME, ID

MOUNTAIN HOME MUNI

TAKE-OFF MINIMUMS: **Rwy 10**, 3500-2 or std. with a min. climb of 305' per NM to 7300. **Rwy 28**, 3500-2 or std. with a min. climb of 290' per NM to 7300.

DEPARTURE PROCEDURE: **Rwy 10**, climbing left turn direct STI NDB. **Rwy 28**, climbing right turn direct STI NDB. All aircraft departing STI NDB bearing 080° CW 340° climb on course. All others continue climb in hold (E, left turns, 271° inbound) to cross STI NDB at or above 7300.

NAMPA, ID

NAMPA MUNI

DEPARTURE PROCEDURE: **Rwy 11**, climbing right turn direct MPA NDB, continue climb in MPA holding pattern (NW, right turns, 145° inbound). Depart MPA NDB at or above 5500 before proceeding on course.

Rwy 29, climb runway heading to 3700 then climbing right turn direct MPA NDB, continue climb in MPA holding pattern (NW, right turns, 145° inbound). Depart MPA NDB at or above 5500 before proceeding on course.

NOTE: **Rwy 11, 70'** AGL tree, 1225' from departure end of runway, 90' right of centerline.

**NEWCASTLE, WY**

MONDELL FIELD (ECS)

AMDT 3A 09267 (FAA)

TAKE-OFF MINIMUMS: **Rwys 5,17,23,35**, NA. **Rwy 13**, 200-1 std. with a min. climb of 275' per NM to 4400.
Rwy 31, 300-1 std. with a min. climb of 300' per NM to 4600.

DEPARTURE PROCEDURE: **Rwy 31**, climbing left turn.

All aircraft climb to 5500 via ECS R-143, then climbing right turn direct ECS VOR, continue climb on course.

NOTE: **Rwy 13**, fence posts, beginning 299' from DER, 218' left of centerline, up to 10' AGL/4190' MSL. Light on antenna 1951' from DER, 879' left of centerline, 84' AGL/4244' MSL. **Rwy 31**, multiple poles, beginning 74' from DER, 237' right of centerline, up to 20' AGL/4200' MSL. Bush 5787' from DER, 1441' right of centerline, 13' MSL/4363' MSL. Railroad 735' from DER, 314' right of centerline 30' AGL/4202' MSL. Road 207' from DER, 254' right of centerline, 15' AGL/4187' MSL.

NEWPORT, OR

NEWPORT MUNI

TAKE-OFF MINIMUMS: **Rwy 2**, NA. **Rwy 16**, 500-2 or std. with a min. climb of 310' per NM to 800.

DEPARTURE PROCEDURE: **Rwy 2**, NA. **Rwy 16**, turn right. **Rwy 34**, turn left. Aircraft departing via ONP R-180 CW R-320 depart on course. All others continue climbing via ONP R-200 to 1500 then climbing left turn direct ONP VORTAC. Cross ONP VORTAC at or above 2200.

NORTH BEND, OR

SOUTHWEST OREGON RGNL (OTH)

AMDT 4B 09071 (FAA)

TAKE-OFF MINIMUMS: **Rwy 4**, 800-2 or std. with a min. climb of 340' per NM to 900. **Rwy 13**, 800-2. **Rwys 16,34**, NA-Rwy closed. **Rwy 31**, 300-2 or std. with a min. climb of 240' per NM to 400.

DEPARTURE PROCEDURE: **Rwys 4,31**, turn left. **Rwys 13,22**, turn right. **All aircraft** climb via OTH VORTAC R-250 to 1300 then climbing right turn direct OTH VORTAC.

NOTE: **Rwy 13**, spire 3468' from departure end of runway, 1128' left of centerline, 55' AGL/243' MSL, multiple trees beginning 3068' from departure end of runway, 78' left of centerline, up to 132' AGL/291' MSL.

OAK HARBOR, WA

A J EISENBERG (OKH)

ORIG-A 09071 (FAA)

TAKE-OFF MINIMUMS: **Rwy 7**, 300-1. **Rwy 25**, 300-1 DEPARTURE PROCEDURE: **Rwy 7**, climb via heading 071° to 2000, then climbing right turn direct CVV VOR/DME. Continue climb on course. **Rwy 25**, climb via heading 251° to 2100, then climbing left turn direct CVV VOR/DME. Continue climb on course.

NOTE: **Rwy 7**, multiple trees beginning 1167' from DER, 212' left of centerline, up to 80' AGL/319' MSL. Multiple trees beginning 664' from DER, 208' right of centerline, up to 80' AGL/299' MSL. Fence 612' from DER, right and left of centerline, 10' AGL/229' MSL. Multiple bushes beginning 240' from DER, 64' left of centerline, up to 8' AGL/227' MSL. **Rwy 25**, cars on road 87' from DER, left and right of centerline, up to 15' AGL/174' MSL. Multiple trees beginning 2271' from DER, right and left of centerline, up to 80' AGL/279' MSL.

OLYMPIA, WA

OLYMPIA RGNL (OLM)

AMDT 5A 09127 (FAA)

TAKE-OFF MINIMUMS: **Rwy 17**, 300-2 or std. with a min. climb of 706' per NM to 600, or 2200-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 8**, climb heading 085° to 1000 then climbing left turn direct OLM VORTAC, thence... **Rwy 17**, climb heading 172° to 1200 then climbing right turn direct OLM VORTAC, thence... or climb in visual conditions to cross OLM VORTAC at or above 2300, thence... **Rwys 26,35**, climbing right turn direct OLM VORTAC, thence...

...continue climb in OLM VORTAC holding pattern (south, right turn, 356° inbound) to cross OLM VORTAC at or above MEA/MCA for route of flight.

NOTE: **Rwy 8**, multiple trees beginning 880' from DER, 214' left of centerline, up to 100' AGL/343' MSL.

Multiple trees beginning 1636' from DER, 131' right of centerline, up to 100' AGL/320' MSL. **Rwy 17**, multiple trees beginning 1008' from DER, 24' left of centerline,

up to 100' AGL/490' MSL. Multiple trees beginning 752' from DER, 3' right of centerline, up to 100' AGL/370' MSL. **Rwy 26**, multiple trees and WSK on building beginning 475' from DER, 595' left of centerline, up to 100' AGL/330' MSL. Multiple trees beginning 338' from DER, 339' right of centerline, up to 100' AGL/309' MSL. **Rwy 35**, multiple trees beginning 2176' from DER, 198' left of centerline, up to 100' AGL/313' MSL. Multiple trees and field light on hangar beginning 657' from DER, 621' right of centerline, up to 100' AGL/315' MSL.

OMAK, WA

OMAK

TAKE-OFF MINIMUMS: **Rwy 17**, 2200-2 or std. with a min. climb of 300' per NM to 4200. **Rwy 35**, NA.

DEPARTURE PROCEDURE: **Rwy 17**, use GETNG RNAV DEPARTURE. **Rwy 35**, NA.

ONTARIO, OR

ONTARIO MUNI (ONO)

AMDT 3 08325 (FAA)

DEPARTURE PROCEDURE: **Rwy 32**, climb to 9600 on a heading between 010° CW to 141° from departure end of runway or minimum climb of 280' per NM to 9600 for all other courses.

NOTE: **Rwy 14**, multiple trees, poles, and buildings beginning 90' from departure end of runway, 157' right of centerline up to 120' AGL/2314' MSL. Multiple trees, poles, and buildings beginning 502' from departure end of runway, 506' left of centerline up to 120' AGL/2314' MSL. **Rwy 32**, multiple trees, poles, and buildings beginning 340' from departure end of runway, 405' left of centerline up to 100' AGL/2458' MSL. Multiple trees, poles, and buildings beginning 2' from departure end of runway, 472' right of centerline up to 100' AGL/2431' MSL.

PASCO, WA

TRI-CITIES

DEPARTURE PROCEDURE: **All runways**, climb runway heading to 1000, thence... **Rwy 12**, turn left. All others turn right. **All aircraft** climb direct PSC VOR/DME before proceeding on course.



PENDLETON, OR

EASTERN OREGON RGNL AT PENDLETON (PDT)

AMDT 3 09183 (FAA)

DEPARTURE PROCEDURE: **Rwys 7, 29, 34**, climbing left turn direct PDT VORTAC, thence...

Rwys 11, 16, climbing right turn direct PDT VORTAC, thence...

Rwy 25, climb direct PDT VORTAC, thence...

...continue climb in PDT VORTAC holding pattern (West, left turn, 073° inbound) to cross PDT VORTAC at or above MEA before proceeding on course.

NOTE: **Rwy 16**, multiple trees beginning 232' from DER, 348' right of centerline, up to 100' AGL/1579' MSL.

Rwy 25, multiple antennas and terrain beginning 203' from DER, 259' left of centerline, up to 13' AGL/1512' MSL. **Rwy 29**, terrain 189' from DER, 247' left of centerline, 1493' MSL.

PINEDALE, WY

PINEDALE/RALPH WENZ FIELD (PNA)

AMDT 2 09295 (FAA)

TAKE-OFF MINIMUMS: **Rwy 29**, std. with a min. climb of 310' per NM to 8300, or 4900-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 11**, climbing right turn to 10000 via heading 190° and BPI R-040 to BPI VOR/DME before proceeding on course. **Rwy 29**, climbing left turn to 10000 via heading 230° and BPI R-020 to BPI VOR/DME before proceeding on course or for climb in visual conditions: cross Pinedale/Ralph Wenz Field at or above 11800 before proceeding on course.

PLENTYWOOD, MT

SHER-WOOD

NOTE: **Rwy 12**, multiple bushes beginning 47' from departure end of runway, 71' left of centerline, up to 12' AGL/2251' MSL. Multiple bushes beginning 362' from departure end of runway, 514' right of centerline, up to 12' AGL/2251' MSL. **Rwy 30**, multiple bushes and road beginning 68' from departure end of runway, 75' right of centerline, up to 12' AGL/2303' MSL. Multiple bushes beginning 217' from departure end of runway, 60' left of centerline, up to 12' AGL/2296' MSL.

POCATELLO, ID

POCATELLO RGNL (PIH)

AMDT 7 09351 (FAA)

DEPARTURE PROCEDURE: use KNURL ONE DEPARTURE.

POLSON, MT

POLSON

TAKE-OFF MINIMUMS: **Rwy 18**, N/A-extremely precipitous terrain. **Rwy 36**, standard with a min. climb of 270' per NM to 8400'.

DEPARTURE PROCEDURE: **Rwy 36**, Use ANGIL RNAV DEPARTURE.

NOTES: **Rwy 36**, Road 509' from departure end of runway, 2955' MSL. Trees 2.39 NM from departure end of runway, 3383' left of centerline, 100' AGL/3179' MSL. Rapidly rising precipitous terrain left and right of centerline running along southern Flathead River ridges.

PORT ANGELES, WA

PORT ANGELES CGAS

DEPARTURE PROCEDURE: Copter departure, climb from landing area direct to EDIZ HOOK NDB. Continue climb in holding pattern (NE, right turns, 237° inbound) to MEA for direction of flight.

WILLIAM R FAIRCHILD INTL

DEPARTURE PROCEDURE: **Rwys 8, 13, 26, 31**, use WATTR FIVE DEPARTURE.

PORTLAND, OR

PORTLAND INTL (PDX)

AMDT 6 09015 (FAA)

TAKE-OFF MINIMUMS: **Rwy 3**, 500-3 or std. w/min. climb of 400' per NM to 600. **Rwy 10L/R**, std. w/min. climb of 270' per NM to 2900. **Rwy 21**, std. w/min. of 310' per NM to 1800.

DEPARTURE PROCEDURE: **Rwy 3**, climb heading 025° to 700, then climbing left turn direct BTG VORTAC, thence... **Rwys 10L, 10R**, climb heading 099° to 500, then climbing left turn direct BTG VORTAC, thence... **Rwy 21**, climb heading 205.03 to 500, then climbing right turn direct BTG VORTAC, thence... **Rwys 28L, 28R**, climb heading 279° to 500, then climbing right turn direct BTG VORTAC, thence... continue climb in BTG VORTAC holding pattern (hold NW, right turns, 149° inbound) to cross BTG VORTAC at or above MCA/MEA before proceeding on course.

NOTE: **Rwy 3**, signs, tower, trees, and vehicle on road beginning 468' from departure end of runway, 28' left of centerline, up to 100' AGL/449' MSL. Poles, trees, and vehicle on road beginning 609' from departure end of runway, 7' left of centerline, up to 100' AGL/416' MSL. **Rwy 10L**, rising terrain and vehicle on road beginning 7' from departure end of runway, 376' left of centerline, up to 17' AGL/60' MSL. **Rwy 10R**, pole 1996' from departure end of runway, 758' right of centerline, 54' AGL/74' MSL. note: **Rwy 21**, trees beginning 1319' from departure end of runway, 155' right of centerline, up to 100' AGL/318' MSL. Poles and trees beginning 353' from departure end of runway, 36' left of centerline, up to 100' AGL/317' MSL. **Rwy 28L**, trees 1873' from departure end of runway, 836' left of centerline, 50' AGL/88' MSL. **Rwy 28R**, multiple signs, poles, and vehicle on road beginning 876' from departure end of runway, 654' right of centerline, up to 27' AGL/69' MSL.

PORTLAND, OR (CON'T)

PORTLAND-HILLSBORO

TAKE-OFF MINIMUMS: **Rwy 30**, 200-1¼ or std. with a min. climb of 223' per NM to 500. Alternatively, with standard take-off minimums and a normal 200'/NM climb gradient, take-off must occur no later than 1600' prior to departure end of runway.

DEPARTURE PROCEDURE: **Rwy 12**, climbing right turn direct UBG VOR/DME...**Rwys 2, 20, 30**, climbing left turn direct UBG VOR/DME...

...all aircraft climb in UBG VOR/DME holding pattern (west, right turn, 108° inbound) to cross UBG VOR/DME at or above MEA/MCA for direction of flight before proceeding on course.

NOTE: **Rwy 2**, multiple roads beginning 246' from departure end of runway, 3' right of centerline, up to 15' AGL/220' MSL. **Rwy 12**, multiple trees beginning 1842' from departure end of runway, 222' left of centerline, up to 125' AGL/324' MSL. Multiple trees beginning 3629' from departure end of runway, 46' right of centerline, up to 143' AGL/332' MSL. **Rwy 20**, multiple trees and pole beginning 967' from departure end of runway, 118' left of centerline, up to 93' AGL/292' MSL. Vent of hangar 63' from departure end of runway, 428' left of centerline, 26' AGL/225' MSL. Multiple trees and antenna on building beginning 965' from departure end of runway, 449' right of centerline, up to 74' AGL/273' MSL. **Rwy 30**, multiple trees beginning 1664' from departure end of runway, 623' right of centerline, up to 194' AGL/363' MSL. Pole 702' from departure end of runway, 603' left of centerline, 26' AGL/215' MSL.

PORTLAND-TROUTDALE

TAKE-OFF MINIMUMS: **Rwy 7**, 3600-2 or std. with a min. climb of 380' per NM to 4100. **Rwy 25**, 900-2 or std. with a min. climb of 360' per NM to 1000.

DEPARTURE PROCEDURE: **Rwy 7**, turn left.

Rwy 25, turn right. All aircraft climb via BTGR-125 direct BTG VORTAC. Continue climb on BTGR-329 within 10 NM to cross BTG VORTAC at or above: BTG R-355 CW R-055 or R-085 CW R-115 5000; all others 2500.

POWELL, WY

POWELL MUNI

TAKE-OFF MINIMUMS: **Rwy 3, 16, 21, 34**, NA.

DEPARTURE PROCEDURE: **Rwy 13**, turn right.

Rwy 31, turn left. All aircraft climb direct COD VOR/DME. Aircraft departing COD R-350 CW R-170 climb on course. All others continue climb in COD VOR/DME holding pattern (N, left turns, 189° inbound) to cross COD VOR/DME at or above 8800

PRINEVILLE, OR

PRINEVILLE (S39)

AMDT 1 08213 (FAA)

TAKE-OFF MINIMUMS: **Rwy 10**, std. w/ min. climb of 350 feet per NM to 6500, or 2400-3 for climb in visual conditions. **Rwy 15**, std. w/ min. climb of 470' per NM to 6200, or 2400-3 for climb in visual conditions. **Rwy 28**, std. w/ min. climb of 450' per NM to 6700, or 2400-3 for climb in visual conditions. **Rwy 33**, std. w/ min. climb of 380' per NM to 6700, or 2400-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 10**, climb heading 102° to 6500 before proceeding on course or for climb in visual conditions cross Prineville Muni airport at or above 5600 before proceeding on course. **Rwy 15**, climb heading 154° to 6200 before proceeding on course or for climb in visual conditions cross Prineville Muni airport at or above 5600 before proceeding on course.

Rwy 28, climb heading 282° to 6700 before proceeding on course or for climb in visual conditions cross Prineville Muni airport at or above 5600 before proceeding on course. **Rwy 33**, climb heading 334° to 6700 before proceeding on course or for climb in visual conditions cross Prineville Muni airport at or above 5600 before proceeding on course.

NOTE: **Rwy 10**, trees beginning 2693' from departure end of runway, 545' right of centerline, up to 100' AGL/3339' MSL. **Rwy 15**, trees beginning 1129' from departure end of runway, 697' right of centerline, up to 100' AGL/3319' MSL. **Rwy 28**, trees beginning 1803' from departure end of runway, 74' right of centerline, up to 100' AGL/3319' MSL. **Rwy 33**, trees beginning 2636' from departure end of runway, 379' right of centerline, up to 100' AGL/3319' MSL.

PULLMAN-MOSCOW, WA

PULLMAN-MOSCOW RGNL

TAKE-OFF MINIMUMS: **Rwy 5**, 300-1¼ with a min. climb of 278' per NM to 4400, or 4600-3 for climb in visual conditions. **Rwy 23**, 300-1 or std. with a min. climb of 361' per NM to 4700.

DEPARTURE PROCEDURE: **Rwy 5**, climbing left turn direct PUW VOR/DME, cross PUW VOR/DME at or above 4700, continue climb in PUW VOR/DME holding pattern (SW, left turn, 032° inbound) to cross PUW VOR/DME at or above MEA for direction of flight, or for climb in visual conditions; cross Pullman-Moscow Rgnl at or above 4500. **Rwy 23**, climbing left turn via PUW VOR/DME R-021, cross PUW VOR/DME at or above 4700, continue climb in PUW VOR/DME holding pattern (SW, left turn, 032° inbound) to cross PUW VOR/DME at or above MEA for direction of flight.

NOTE: **Rwy 5**, multiple trees and terrain left and right of centerline, beginning 614' from departure end of runway, 424' right of centerline up to 50' AGL/2677' MSL. Terrain 3503' from departure end of runway, 770' left of centerline, 50' AGL/2608' MSL. **Rwy 23**, multiple trees, terrain, fences, poles, and tanks beginning 669' from departure end of runway, 412' right of centerline, up to 52' AGL/2769' MSL.

TAKE-OFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

PUYALLUP, WA

PIERCE COUNTY-THUN FIELD (PLU)

AMDT 1A 09071 (FAA)

TAKE-OFF MINIMUMS: **Rwy 16, 34**, 300-1.

DEPARTURE PROCEDURE: **Rwy 16**, climbing right turn. **Rwy 34**, climb runway heading. **All aircraft** climb via SEAR-158 to COTNY INT/SEA 18.1 DME. Continue in COTNY holding pattern (Hold S, left turns, 338° inbound) to depart COTNY at or above: 001° CW 090° 3500, 090° 3500, 091° CW 120° 10,400, 121° CW 170° 2700, 171° CW 360° 1500.

NOTE: **Rwy 16**, light pole 511' from DER, 567' right of centerline, 40' AGL/552' MSL. Multiple poles on building beginning 187' from DER, 416' left of centerline, up to 575' MSL. Multiple trees beginning 363' from DER, 656' left of centerline to 540' right of centerline, up to 662' MSL. Vehicles on road beginning 1149' from DER, 512' right of centerline, up to 15' AGL/582' MSL. Terrain beginning 1293' from DER, 529' left of centerline to 352' right of centerline, up to 581' MSL. Pipe 1520' from DER, 303' left of centerline, 574' MSL. **Rwy 34**, multiple trees beginning 58' from DER, 591' left of centerline to 1029' right of centerline, up to 694' MSL. Flagpole 1155' from DER, 464' left of centerline, 578' MSL. Building 564' from DER, 410' left of centerline, 555' MSL.

RAWLINS, WY

RAWLINS MUNI/HARVEY FIELD

TAKE-OFF MINIMUMS: **Rwy 4**, 600-2 or std. with a min. climb of 440' per NM to 7500. **Rwy 22**, 1500-2 or std. with a min climb of 365' per NM to 8700. **Rwys 10, 28**, NA.

DEPARTURE PROCEDURE: **Rwy 4**, turn right.

Rwy 22, turn left. Climb to 10000 via RWL R-200 and CKW R-080 to CKW VOR/DME then via assigned route. Aircraft departing eastbound V4 or V6 climb via RWL R-200 to assigned route then climb on course.

REDMOND, OR

ROBERTS FIELD (RDM)

AMDT 5 09183 (FAA)

TAKE-OFF MINIMUMS: **Rwy 22**, std. w/min. climb of 269' per NM to 4700. **Rwy 28**, std. w/min. climb of 276' per NM to 4800.

DEPARTURE PROCEDURE: **Rwy 4**, climbing left turn via heading 265° and DSD R-047 to DSD VORTAC, climb in DSD VORTAC holding pattern (hold North, right turn, 168° inbound) to cross DSD VORTAC at or above MEA for route of flight before proceeding on course. **Rwy 10**, climbing right turn via heading 240° and DSD R-090 to DSD VORTAC, climb in DSD VORTAC holding pattern (hold North, right turn, 168° inbound) to cross DSD VORTAC at or above MEA for route of flight before proceeding on course. **Rwy 22**, climb heading 222° and DSD R-090 to DSD VORTAC, climb in DSD VORTAC holding pattern (hold North, right turn, 168° inbound) to cross DSD VORTAC at or above MEA for route of flight before proceeding on course. **Rwy 28**, climbing left turn via heading 275° and DSD R-045 to DSD VORTAC, climb in DSD VORTAC holding pattern (hold North, right turn, 168° inbound) to cross DSD VORTAC at or above MEA for route of flight before proceeding on course.

NOTE: **Rwy 28**, numerous trees beginning 1' from DER, 356' right of centerline, 12' AGL/3079' MSL. Tree 364' from DER, 448' left of centerline, 15' AGL/3054' MSL.

RENTON, WA

RENTON MUNI (RNT)

AMDT 7 09351 (FAA)

TAKE-OFF MINIMUMS: **Rwy 16**, std. with a min. climb of 405' per NM to 800, or 1100-2½ for climb in visual conditions. **Rwy 34**, 500-2½ or std. with a min. climb of 315' per NM to 700.

DEPARTURE PROCEDURE: **Rwy 16**, climb heading 157° to 700, then climbing right turn direct SEA VORTAC, thence..., or for climb in visual conditions: cross Renton Muni Airport westbound at or above 1000 MSL, then proceed on SEA R-029 to SEA VORTAC, thence... **Rwy 34**, Climb heading 337° to 700, then climbing left turn direct SEA VORTAC thenceClimb in SEA VORTAC holding pattern (East, left turns, 290° inbound) to cross SEA VORTAC at or above MEA/MCA for direction of flight.

NOTES: **Rwy 16**, trees, towers, lights and blast shield beginning 185' from DER, 4' left of centerline, up to 100' AGL/574' MSL. Trees, lights and sign beginning 40' from DER, 54' right of centerline, up to 100' AGL/297' MSL. **Rwy 34**, Trees and terrain beginning 1.6 NM from DER, 104' left of centerline, up to 100' AGL/485' MSL. Trees, terrain and wood piling beginning 75' from DER, 7' right of centerline, up to 100' AGL/426' MSL.

REXBURG, ID

REXBURG-MADISON COUNTY

DEPARTURE PROCEDURE: **Rwy 17**, climbing right turn. **Rwy 35**, climbing left turn. **All aircraft** climb via IDA VOR/DME R-015 to RIGBY Int to MEA for route of flight before proceeding on course.

NOTE: **Rwy 17**, 100' AGL trees 125' from departure end of runway, 350' left of centerline. **Rwy 35**, 100' AGL trees 350' from departure end of runway, 450' right of centerline. 100' AGL trees 750' from departure end of runway, 500' left of centerline.

RICHLAND, WA**RICHLAND**

TAKE-OFF MINIMUMS: **Rwy 1**, 200-1 or std. w/min. climb of 310' per NM to 700. **Rwy 19**, std. w/min. climb of 480' per NM to 2300, or 1800-2½ for climb in visual conditions. **Rwy 26**, 500-2½ or std. w/min. climb of 309' per NM to 1000.

DEPARTURE PROCEDURE: **Rwy 1**, climbing right turn via heading 070° and PSC R-301 to PSC VOR/DME, thence...**Rwy 8**, climbing right turn direct PSC VOR/DME, thence...**Rwy 19**, climbing right turn via heading 040° and PSC R-269 to PSC VOR/DME, or for climb in visual conditions: cross Richland Airport at or above 2000 then proceed on PSC R-269, to PSC VOR/DME thence...**Rwy 26**, climbing right turn via heading 070° and PSC R-287 to PSC VOR/DME, thence... climb in PSC VOR/DME holding pattern (hold East, right turn, 291° inbound) to cross PSC VOR/DME at or above MEA for route of flight before proceeding on course.

NOTE: **Rwy 1**, crane and multiple poles 752' from departure end of runway, 477' right of centerline, up to 110' AGL/520' MSL. Trees 43' from departure end of runway, 414' left of centerline, 100' AGL/407' MSL. **Rwy 8**, multiple trees and railroad beginning 400' from departure end of runway, 252' right of centerline, up to 100' AGL/469' MSL. Multiple trees and railroad beginning 204' from departure end of runway, 241' left of centerline, up to 100' AGL/469' MSL. **Rwy 19**, multiple trees 64' from departure end of runway, 169' right of centerline, up to 100' AGL/679' MSL. Multiple trees, terrain, and buildings 22' from departure end of runway, 30' left of centerline, up to 100' AGL/479' MSL. **Rwy 26**, multiple trees, fence, and terrain beginning 458' from departure end of runway, 230' left of centerline, up to 100' AGL/839' MSL. Multiple posts, antenna, and terrain beginning 164' from departure end of runway, 255' right of centerline, up to 18' AGL/417' MSL.

RIVERTON, WY**RIVERTON RGNL**

DEPARTURE PROCEDURE: Aircraft departing RIW R-280 CW R-170 climb on course. All others climb to 6600, then continue climb direct RIW VOR/DME to cross RIW VOR/DME at or above 7500 before proceeding on course.

ROCK SPRINGS, WY**ROCK SPRINGS-SWEETWATER COUNTY**

DEPARTURE PROCEDURE: Climb direct OCS VORTAC. Aircraft departing OCS R-205 CW R-170 climb on course. All others climb in the OCS holding pattern (E, right turns, 260° inbound) to cross OCS VORTAC at or above 7300.

RONAN, MT**RONAN (7S0)****ORIG 09295 (FAA)**

TAKE-OFF MINIMUMS: **Rwy 16**, std. w/min. climb of 260' per NM to 9900 or 6100-3 for climb in visual conditions. **Rwy 34**, std. w/min. climb of 250' per NM to 9900 or 6100-3 in visual conditions.

DEPARTURE PROCEDURE: **Rwy 16**, climb to 8800 on a heading between 177° CW to 336° from DER or for climb in visual conditions, cross Ronan airport at or above 9000 before proceeding on course. **Rwy 34**, climb to 8800 on a heading between 336° CCW to 177° from DER or for climb in visual conditions, cross Ronan airport at or above 9000 before proceeding on course.

NOTE: **Rwy 16**, tree 485' from DER, 386' left of centerline 50' AGL/3149' MSL. **Rwy 34**, building 158' from DER, 370' left of centerline 40' AGL/3130' MSL. Tree 1358' from DER, 556' left of centerline 50' AGL/3149' MSL.

ROSEBURG, OR

ROSEBURG RGNL (RBG)

AMD T 5A 08297 (FAA)

TAKE-OFF MINIMUMS: **Rwy 16**, std. with a min. climb of 642' per NM to 2000, or 1700-3 for climb in visual conditions. **Rwy 34**, std. with a min. climb of 760' per NM to 2000, or 1700-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 16**, climb direct RBG VOR/DME, or climb in visual conditions to cross Roseburg Airport southbound at or above 2200, then direct RBG VOR/DME. Then via RBG R-157 and right turn direct RBG VOR/DME to cross at or above the MCA or MEA for route of flight. **Rwy 34**, climb via heading 342° to 4000, or climb in visual conditions to cross Roseburg Airport northbound at or above 2200 and then via heading 342° to 4000. Then climbing left turn direct RBG VOR/DME, to cross RBG VOR/DME at or above MCA or MEA for route of flight. Aircraft that have not reached the MCA or MEA for route of flight continue climb via RBG R-157 and right turn direct RBG VOR/DME.

NOTE: **Rwy 16**, tower 1.56 NM from departure end of runway, 2231' right of centerline, 50' AGL/1201' MSL, tree 1.47 NM from departure end of runway, 1560' right of centerline, 21' AGL/980' MSL, tree 1.46 NM from departure end of runway, 1298' right of runway centerline, 45' AGL/964' MSL, pole 1.36 NM from departure end of runway, 921' right of centerline, 75' AGL/914' MSL, rod on airway beacon 1.29 NM from departure end of runway, 409' right of centerline, 52' AGL/891' MSL, tree 655' from departure end of runway, 347' right of runway centerline, 93' AGL/593' MSL, obstruction light on pole 691' from departure end of runway, 187' right of runway centerline, 117' AGL/557' MSL. **Rwy 34**, tree 1.10 NM from departure end of runway, 2003' left of runway centerline, 60' AGL/1179' MSL. Tree 5165' from departure end of runway, 1744' left of centerline, 64' AGL/1023' MSL. Obstruction light on pole 4850' from departure end of runway, 56' left of centerline, 15' AGL/894' MSL. Tree 4785' from departure end of runway, 48' left of runway centerline, 23' AGL/862' MSL. Tree 1.41 NM from departure end of runway, 1826' left of runway centerline, 17' AGL/896' MSL. Tree 4079' from departure end of runway, 508' left of runway centerline, 21' AGL/780' MSL. Tree 5067' from departure end of runway, 265' right of centerline, 43' AGL/802' MSL. Tree 4260' from departure end of runway, 345' right of centerline, 42' AGL/761' MSL. Tree 1465' from departure end of runway 329' right of runway centerline, 100' AGL/642' MSL. Tree 913' from departure end of runway, 217' right of runway centerline, 100' AGL/622' MSL. Tree 647' from departure end of runway, 345' right of runway centerline, 100' AGL/615' MSL. Hill 1065' from departure end of runway, 299' right of runway centerline 608' MSL. Trees beginning 60' from departure end of runway, 117' left of runway centerline, up to 16' AGL/554' MSL. Trees beginning 242' from departure end of runway, 209' right of runway centerline, up to 56' AGL/584' MSL. Vehicle on road 265' from departure end of runway, 229' right of runway centerline, 15' AGL/560' MSL. Multiple signs beginning 792' from departure end of runway, 550' left of runway centerline, up to 60' AGL/565' MSL. Bush 94' from departure end of runway, 228' right of runway centerline, 19' AGL/547' MSL. Bush 202' from departure end of runway, 92' left of centerline, 7' AGL/535' MSL. Pole 640' from departure end of runway, 354' left of runway centerline, 29' AGL/557' MSL.

SALEM, OR

MCNARY FIELD

TAKE-OFF MINIMUMS: **Rwy 13**, 600-2 or std. with a min. climb of 240' per NM to 800. **Rwy 16**, 600-2 or std. with a min. climb of 340' per NM to 800.

DEPARTURE PROCEDURE: Comply with SIDs or; **Rwys 31, 34**, turn right. **Rwy 16**, turn left. **Rwy 13**, climb heading 130°. **All aircraft** climb direct TURN O LOM/Int. Continue climb in holding (SE, left turns, 310° inbound) to cross TURN O LOM/INT at or above MEA for route of flight.

SALMON, ID

LEMHI COUNTY

TAKE-OFF MINIMUMS: **Rwy 17**, NA. **Rwy 35**, 4300-5 or std. with a min. climb of 390' per NM to 8000.

DEPARTURE PROCEDURE: **Rwy 17**, NA. **Rwy 35**, climb runway heading to 8000, then climbing left turn to 11,300 direct LKT VOR/DME before proceeding on course.

SANDPOINT, ID

SANDPOINT

TAKE-OFF MINIMUMS: **Rwy 1**, 4200-2 or std. with a min. climb of 520' per NM to 5800. **Rwy 19**, 2200-2 or std. with a min. climb of 480' per NM to 4600.

DEPARTURE PROCEDURE: **Rwy 1**, climbing right turn to COE VOR/DME via heading 200° and COE R-002.

Rwy 19, climbing left turn to COE VOR/DME via heading 140° and COE R-002.

SARATOGA, WY

SHIVELY FIELD

TAKE-OFF MINIMUMS: **Rwy 23**, 400-1 or std. with a min. climb of 220' per NM to 7400.

DEPARTURE PROCEDURE: **Rwy 5**, turn left heading 280°. **Rwy 23**, turn right heading 340°. **All aircraft** climb to 9000 via 310° bearing from SAA NDB then continue climb on course.

SCAPPOOSE, OR

SCAPPOOSE INDUSTRIAL AIRPARK

DEPARTURE PROCEDURE: **Rwy 15**, climbing left turn direct BTG VORTAC. **Rwy 33**, climbing right turn direct BTG VORTAC. Aircraft departing BTG R-160 CW R-329 climbing left turn on course. All others climb in BTG VORTAC holding pattern (NW, right turns, 149° inbound) to cross BTG VORTAC at or above MEA/MCA for direction of flight.

NOTE: **Rwy 15**, 158' MSL tree 470' from departure end of runway, 499' right of centerline. **Rwy 33**, cross departure end of runway 33 at or above 35' AGL/90' MSL. 130' MSL tree 613' from departure end of runway, 414' right of centerline; 142' MSL trees 1343' from departure end of runway, 348' right of centerline.

SCOBEY, MT

SCOBEY

TAKE-OFF MINIMUMS: **Rwy 12**, std. with a min. climb of 280' per NM to 3400.

SEATTLE, WA

BOEING FIELD/KING COUNTY INTL

TAKE-OFF MINIMUMS: **Rwy 13L**, 500-3 w/ min. climb of 232' per NM to 800, or 1000-2½ for climb in visual conditions. **Rwy 13R**, std. w/ a min. climb of 476' per NM to 900, or 500-3 w/ a min. climb of 386' per NM to 900, or 1000-2½ for climb in visual conditions. **Rwy 31L**, std. w/ a min. climb of 386' per NM to 800, or 300-1½ w/ min. climb of 235' per NM to 800, or 1000-2½ for climb in visual conditions. **Rwy 31R**, std. w/ a min. climb of 334' per NM to 900, or 400-1¾ w/ min. climb of 216' per NM to 900, or 1000-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 13L/R**, climbing right turn. **Rwys 31L/R**, climbing left turn. All aircraft climb direct to SEA VORTAC, continue climb in SEA VORTAC holding pattern (hold east, left turns, 290° inbound) to cross SEA VORTAC at or above 3000. For climb in visual conditions cross Boeing Field/King County Intl Airport at or above 900, then climb to 3000 via SEA R-344 to SEA VORTAC, continue climb in SEA VORTAC holding pattern (hold east, left turns, 290° inbound) to cross SEA VORTAC at or above 3000.

NOTES: **Rwy 13L**, multiple trees, towers, antennas and building beginning 402' from departure end of runway, 411' left of centerline, up to 127' AGL/479' MSL.

Rwy 13R, multiple trees and poles beginning 35' from departure end of runway, 154' left of centerline, up to 66' AGL/485' MSL. Multiple trees and poles beginning 501' from departure end of runway, 3' right of centerline, up to 77' AGL/195' MSL. **Rwy 31L**, multiple trees, fence, and building beginning 250' from departure end of runway, 253' left of centerline, up to 71' AGL/101' MSL. Multiple trees and floodlights beginning 1245' from departure end of runway, 447' right of centerline, up to 71' AGL/239' MSL. **Rwy 31R**, multiple trees, hangers, towers, poles and building beginning 12' from departure end of runway, 389' right of centerline, up to 103' AGL/350' MSL. Multiple obstruction lights beginning 214' from departure end of runway, 99' left of centerline, up to 71' AGL/101' MSL.

SEATTLE-TACOMA INTL (SEA)

AMDT 4 08325 (FAA)

DEPARTURE PROCEDURE: **Rwys 16L, 16C, 16R**, climb to 1000 via heading 163°, then climbing right turn direct SEA VORTAC, thence...

Rwys 34L, 34C, 34R, climb to 1000 via heading 343°, then climbing left turn direct SEA VORTAC, thence... climb in SEA VORTAC holding pattern (hold SE, left turns, 310° inbound) to MEA/MCA for route of flight.

NOTE: **Rwy 16L**, trees beginning 2908' from departure end of runway, 1064' right of centerline, up to 100' AGL/476' MSL. **Rwy 16C**, trees beginning 4477' from departure end of runway, 484' right of centerline, up to 100' AGL/507' MSL. **Rwy 16R**, trees, antenna on building and light pole beginning 488' from departure end of runway, 436' left of centerline, up to 100' AGL/507' MSL. Trees beginning 1137' from departure end of runway, 587' right of centerline, up to 100' AGL/468' MSL. **Rwy 34L**, fence 189' from departure end of runway, 401' right of centerline, up to 12' AGL/420' MSL. Trees beginning 4010' from departure end of runway, 857' left of centerline, up to 100' AGL/522' MSL.

SHELBY, MT

SHELBY

TAKE-OFF MINIMUMS: **Rwy 5**, 200-1¼ or std. w/ min. climb of 212' per NM to 3700, or alternatively, w/ std. takeoff minimums and a normal 200'/NM climb gradient, takeoff must occur no later than 1300' prior to departure end of runway.

NOTE: **Rwy 5**, fence post 320' from departure end of runway, 162' right of centerline, 12' AGL/3455' MSL, truck on road beginning 515' from departure end of runway, 632' right of centerline, 17' AGL/3498' MSL, tree 1 NM from departure end of runway, 1242' left of centerline, 75' AGL/3604' MSL.

Rwy 11, truck on road 906' from departure end of runway, 691' left of centerline, 17' AGL/3456' MSL, tree 1697' from departure end of runway, 26' right of centerline, 75' AGL/3495' MSL, tree 1561' from departure end of runway, 322' left of centerline, 75' AGL/3514' MSL, light standard 852' from departure end of runway, 174' left of centerline, 22' AGL/3451' MSL.

SHELTON, WA

SANDERSON FIELD

TAKE-OFF MINIMUMS: **Rwy 5**, std. w/ a min. climb of 312' per NM to 4000, or 1500-2½ for a climb in visual conditions.

Rwy 23, std. w/ a min. climb of 414' per NM to 4000, or 1500-2½ for a climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 5**, climbing right turn to intercept SEA R-230 to CARRO intersection. Or for climb in visual conditions: Cross Sanderson Field northeast bound at or above 1600, thence via SEA R-230 to cross CARRO intersection at or above 4000. **Rwy 23**, climbing left turn to intercept SEA R-230 to CARRO intersection. Or for climb in visual conditions: Cross Sanderson Field northeast bound at or above 1600, thence via SEA R-230 to cross CARRO intersection at or above 4000.

NOTE: **Rwy 5**, multiple trees beginning 550' from departure end of runway, 107' left of centerline, up to 94' AGL/366' MSL. Multiple trees beginning 130' from departure end of runway, 70' right of centerline, up to 80' AGL/352' MSL. **Rwy 23**, multiple trees beginning 52' from departure end of runway, 149' left of centerline, up to 72' AGL/330' MSL. Multiple trees beginning 886' from departure end of runway, 153' right of centerline, up to 155' AGL/486' MSL.

SHERIDAN, WY

SHERIDAN COUNTY

TAKE-OFF MINIMUMS: **Rwy 5**, 700-3 or std. w/ min. climb of 318' per NM to 5100, or... **Rwy 14**, 800-3 or std. w/ min. climb of 263' per NM to 5100, or... **Rwy 23**, 900-3 or std. w/ min. climb of 348' per NM to 5100, or...
...1400/3 for climb in visual conditions. Climb in visual conditions NA at night.

DEPARTURE PROCEDURE: **Rwy 5**, climbing left turn via SHR R-106 to SHR VORTAC, or climb in visual conditions to cross Sheridan County Airport northwestbound at or above 5300, then via SHR R-126 to SHR VORTAC, thence... **Rwy 14**, climbing left turn via heading 320° and SHR R-106 to SHR VORTAC, or climb in visual conditions to cross Sheridan County Airport northwestbound at or above 5300, then via SHR R-126 to SHR VORTAC, thence... **Rwy 23**, climbing right turn via SHR R-153 to SHR VORTAC, or climb in visual conditions to cross Sheridan County Airport northwestbound at or above 5300, then via SHR R-126 to SHR VORTAC, thence... **Rwy 32**, climb via heading 320° and SHR R-106 to SHR VORTAC, thence...
...climb in holding pattern (hold northwest, left turn, 133° inbound) to cross SHR VORTAC at or above airway MEA for route of flight.

NOTE: **Rwy 5**, multiple trees beginning 101' from departure end of runway, 188' left of centerline, up to 80' AGL/3991' MSL. **Rwy 23**, fence 1201' from departure end of runway, 10' left of centerline, 20' AGL/4060' MSL. Building 1949' from departure end of runway, 415' left of centerline, 17' AGL/4077' MSL. Tree 3337' from departure end of runway, 391' right of centerline, 43' AGL/4143' MSL. **Rwy 32**, antenna 53' from departure end of runway, 398' right of centerline, 20' AGL/4020' MSL.

SIDNEY, MT

SIDNEY-RICHLAND MUNI

TAKE-OFF MINIMUMS: **Rwy 28**, 400-2 or std. with a min. climb of 260' per NM to 2300.

SNOHOMISH, WA

HARVEY FIELD (S43)

ORIG 09127 (FAA)

TAKE-OFF MINIMUMS: **Rwys 15R, 33L**, NA-obstacles. **Rwy 15L**, std. w/ min. climb of 353' per NM to 1100, or 1200-2½ for climb in visual conditions. **Rwy 33R**, std. w/ min. climb of 475' per NM to 800, or 1200-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 15L**, climbing right turn on 344° course to WATON LOM, or for climb in visual conditions, cross Harvey Field at or above 1100 then proceed on 329° course to WATON LOM, thence... **Rwy 33R**, climb on 329° course to WATON LOM, or for climb in visual conditions, cross Harvey Field at or above 1100 then proceed on 329° course to WATON LOM, thence...

... aircraft departing WATON LOM on bearings 150° CW 340° from WATON LOM climb on course. Aircraft departing WATON LOM on bearings 340° CW 150° from WATON LOM, climb in holding pattern (South, left turns, 339° inbound) to cross WATON LOM at or above 4500 before proceeding on course.

NOTE: **Rwy 15L**, tree 81' from DER, 177' right of centerline, 40' AGL/106' MSL. Trees 685' from DER, left and right of centerline, up to 48' AGL/70' MSL. **Rwy 33R**, powerline 139' from DER, 226' left of centerline, 40' AGL/56' MSL. Tree 298' from DER, 205' right of centerline, 104' AGL/121' MSL. Tower 5708' from DER, 1956' right of centerline, 206' AGL/300' MSL.

SPOKANE, WA FELTS FIELD

TAKE-OFF MINIMUMS: **Rwys 3L, 3R**, std. w/ min. climb of 400' per NM to 3600, or 1600-3 for climb in visual conditions. **Rwy 21L**, std. w/ min. climb of 360' per NM to 3100, or 1600-3 for climb in visual conditions. **Rwy 21R**, std. w/ min climb of 375' per NM to 3100, or 1600-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 3L, 3R**, climb to 3600, then climbing right turn heading 210° and GEG R-050 to GEG VORTAC, or for climb in visual conditions: cross Felts Field Airport southbound at or above 3400, then via GEG R-050 to GEG VORTAC. Cross GEG VORTAC at or above the MCA or MEA for route of flight, before proceeding on course. **Rwys 21L, 21R**, climb to 2800, then climbing left turn heading 190° and GEG R-050 to GEG VORTAC, or for climb in visual conditions: cross Felts Field Airport southbound at or above 3400, then via GEG R-050 to GEG VORTAC. Cross GEG VORTAC at or above the MCA or MEA for route of flight, before proceeding on course.

NOTE: **Rwy 3L**, multiple trees beginning 5000' from departure end of runway, 530' left of centerline, up to 104' AGL/2513' MSL. Tree 1854' from departure end of runway, 773' right of centerline, 54' AGL/2030' MSL, tree 2365' from departure end of runway, 798' right of centerline, 61' AGL/2037' MSL. **Rwy 3R**, multiple trees beginning 5016' from departure end of runway, 1033' left of centerline, up to 104' AGL/2529' MSL, pole 2.5 NM from departure end of runway, 2059' left of centerline, 62' AGL/2454' MSL, hangar 92' from departure end of runway, 341' right of centerline, 5' AGL/1967' MSL, NDB 925' from departure end of runway, 270' right of centerline, 25' AGL/1987' MSL, multiple trees beginning 1870' from departure end of runway, 271' right of centerline, up to 128' AGL/3560' MSL. **Rwy 21L**, pole 316' from departure end of runway, 302' left of centerline, 33' AGL/1992' MSL, tree 926' from departure end of runway, 362' left of centerline, 50' AGL/2006' MSL, building 1057' from departure end of runway, 158' left of centerline, 19' AGL/1975' MSL, building 1061' from departure end of runway, 110' left of centerline, 19' AGL/1975' MSL. Elevator 4080' from departure end of runway, 598' left of centerline, 134' AGL/2080' MSL. **Rwy 21R**, hangar 204' from departure end of runway, 496' left of centerline, 13' AGL/1969' MSL, pole 659' from departure end of runway, 404' left of centerline, 26' AGL/1979' MSL, building, 946' from departure end of runway, 230' left of centerline, 24' AGL/1973' MSL, pole 1399' from departure end of runway, 2' left of centerline, 33' AGL/1982' MSL, elevator 2655' from departure end of runway, 1097' left of centerline, 134' AGL/2080' MSL, tree 189' from departure end of runway, 511' right of centerline, 46' AGL/1979' MSL, tree 480' from departure end of runway, 404' right of centerline, 43' AGL/1979' MSL, pole 1252' from departure end of runway, 55' right of centerline, 29' AGL/1975' MSL, pole 1427' from departure end of runway, 13' right of centerline, 33' AGL/1982' MSL.

SPOKANE INTL

DEPARTURE PROCEDURE: **All aircraft** climb direct GEG VORTAC. Continue climb via R-208 within 10 miles to cross GEG VORTAC at or above: northeastbound V120-448, 5200; eastbound V2, 5200, southeast thru westbound climb on course.

STEVENSVILLE, MT STEVENSVILLE

TAKE-OFF MINIMUMS: **Rwy 12**, do not exceed 210 knots until established on MSOR-163. **Rwy 30**, do not exceed 210 knots until established on MSO R-160.

DEPARTURE PROCEDURE: **Rwy 12**, climbing right turn via heading 335 and MSO R-163 to MSO VOR/DME climb in MSO VOR/DME holding pattern (southeast, right turn, 340° inbound) to 13000' before proceeding on course. **Rwy 30**, climbing right turn via heading 025° and MSO R-160 to MSO VOR/DME Climb in MSO VOR/DME holding pattern (southeast, right turn, 340° inbound) to 13000' before proceeding on course.

SUNRIVER, OR SUNRIVER

TAKE-OFF MINIMUMS: **Rwy 18**, 300-1 or std. with a min. climb of 360' per NM to 4400. **Rwy 36**, 600-2 or std. with a min. climb of 240' per NM to 4900.

DEPARTURE PROCEDURE: **Rwy 18**, climb runway heading to 7000 then climbing left turn direct DSD VORTAC. **Rwy 36**, climb direct to DSD VORTAC. Then **all aircraft** climb on course.

TACOMA, WA TACOMA NARROWS

TAKE-OFF MINIMUMS: **Rwy 35**, 400-1 or std. with a min. climb of 210' per NM to 400'.

DEPARTURE PROCEDURE: **Rwy 17**, turn right, climb via heading 230° to intercept OLM R-009 then direct OLM VORTAC. **Rwy 35**, turn left, climb via heading 270° to intercept SEA R-230 then direct CARRO INT. Continue climb in holding (SW, right turns, 047° inbound) to MEA or assigned altitude for route of flight.

THE DALLES, OR

COLUMBIA GORGE RGNL/THE DALLES MUNI

TAKE-OFF MINIMUMS: **Rwy 2**, CAT A,B 1100-2 or std. with a min. climb of 350' per NM to 1500. CAT C,D 2600-3 or std. with a min. climb of 475' per NM to 3100.

Rwy 7, 900-3 or std. with a min. climb of 330' per NM to 1200. **Rwy 12**, 1400-3 or std. with a min. climb of 500' per NM to 2000. **Rwy 20**, 1800-3 or std. with a min. climb of 470' per NM to 2200. **Rwy 25**, NA. **Rwy 30**, 2900-3 or std. with a min. climb of 500' per NM to 2700.

DEPARTURE PROCEDURE: **Rwys 2, 7**, climbing right turn heading 120°. **Rwy 12**, climb via runway heading. **Rwys 20, 30**, climbing left turn heading 120°. **All aircraft** intercept and climb southbound via LTJ R-165 to 3500. Then climbing left turn direct LTJ VORTAC. Continue climb in LTJ holding pattern (E, right turns, 260° inbound) to cross LTJ VORTAC at or above MCA or MEA for route of flight.

TILLAMOOK, OR TILLAMOOK

TAKE-OFF MINIMUMS: **Rwys 1, 13, 19**, NA. **Rwy 31**, 2000-3 or std. with a min. climb of 350' per NM to 4500.

DEPARTURE PROCEDURE: **Rwys 1, 13, 19**, NA. **Rwy 31**, use FETUJ RNAV DEPARTURE.

TWIN FALLS, ID

JOSLIN FIELD-MAGIC VALLEY RGNL

TAKE-OFF MINIMUMS: **Rwy 12**, NA.

DEPARTURE PROCEDURE: Aircraft departing on TWF R-240 CW R-080 climb on course. All others climb runway heading 6000 then climbing turn direct TWF VORTAC. Climb in holding pattern (NW, right turns, 113° inbound) to MCA or MEA as appropriate for direction of flight.

VANCOUVER, WA

PEARSON FIELD (VUO)

AMDT 2 07354 (FAA)

TAKE-OFF MINIMUMS: **Rwy 8**, std. w/ min. climb of 358' per NM to 600, or 500-3 w/ min. climb of 201' per NM to 600, or 900-2½ for climb in visual conditions. **Rwy 26**, 600-3 or 900-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 8**, climb heading 079° to 500 then climbing left turn direct BTG VORTAC, thence... or for climb in visual conditions: cross Pearson Field at or above 800 MSL then proceed on BTG VORTAC R-179 to BTG VORTAC, thence... **Rwy 26**, climb heading 259° to 700 then climbing right turn direct BTG VORTAC, thence... or for climb in visual conditions: cross Pearson Field at or above 800 MSL then proceed on BTG VORTAC R-179 to BTG VORTAC, thence...

...continue climb in BTG VORTAC holding pattern (hold northwest, right turn, 149° inbound) to cross BTG VORTAC at or above MEA/MCA for route of flight.

NOTE: **Rwy 8**, tree 1.4 NM from departure end of runway, 1283' left of centerline, 100' AGL/395' MSL. Tree 1.7 NM from departure end of runway, 701' left of centerline, 100' AGL/401' MSL. Tree 2 NM from departure end of runway, 849' left of centerline, 100' AGL/406' MSL. Tree 2.4 NM from departure end of runway, 648' left of centerline, 100' AGL/399' MSL. **Rwy 26**, bridge 2704' from departure end of runway, 587' left of centerline, 243' AGL/245' MSL. Crane 1.5 NM from departure end of runway, 2563' right of centerline, 237' AGL/267' MSL. Transmission line tower 2.5 NM from departure end of runway, 2036' right of centerline, 516' AGL/534' MSL.

WALLA WALLA, WA

WALLA WALLA RGNL

DEPARTURE PROCEDURE: **Rwys 2,7,20,25,34**, turn left. **Rwy 16**, turn right. All aircraft climb to 2500 via ALW VOR/DME R-195, then climbing right turn direct ALW VOR/DME to cross ALW VOR/DME at or above MEA or MCA for route of flight.

NOTE: **Rwy 16**, antenna 365' from departure end of runway, 97' right of centerline, 1155' MSL. Terrain 1' from departure end of runway 140' left of centerline, 1145' MSL. **Rwy 20**, light 666' from departure end of runway, 640' left of centerline, 1170' MSL. **Rwy 34**, terrain 213' from departure end of runway, 230' right of centerline, 1130' MSL.

WEISER, ID

WEISER MUNI (S87)

ORIG 08269 (FAA)

TAKE-OFF MINIMUMS: **Rwy 12**, std. w/ min. climb of 310' per NM to 3900 or 2400-3 for climb in visual conditions. **Rwy 30**, std. w/ min. climb of 360' per NM to 4000 or 2400-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 12**, climb heading 121° to 3900 before proceeding on course. **Rwy 30**, climb heading 301° to 4000 before proceeding on course ...for climb in visual conditions: cross Weiser Muni airport at or above 4400 before proceeding on course.

NOTE: **Rwy 12**, tree 248' from departure end of runway, 443' right of centerline, 100' AGL/2184' MSL. **Rwy 30**, tree 1907' from departure end of runway, 769' right of centerline, 100' AGL/2174' MSL.

WENATCHEE, WA

PANGBORN MEMORIAL

TAKE-OFF MINIMUMS: **Rwy 7**, NA. **Rwy 12**, 1500-2 or std. with a min. climb of 510' per NM to 2900. **Rwys 25,30**, CAT A,B 1600-2 or std. with a min. climb of 360' per NM to 3100. CAT C,D 5500-3 or std. with a min. climb of 570' per NM to 7200.

DEPARTURE PROCEDURE: **Rwy 12**, climb runway heading. **Rwys 25,30**, climbing left turn. All aircraft climb via EAT R-113 to 4000 then climbing left turn direct EAT VOR/DME. Aircraft departing EAT R-010 CW R-140 climb on course. All others continue climb in EAT VOR/DME holding pattern (E, right turns, 253° inbound) to cross EAT VOR/DME at or above: R-141 CW R-200 7400; R-201 CW R-009, 8200.

WEST YELLOWSTONE, MT

YELLOWSTONE

TAKE-OFF MINIMUMS: **Rwy 19**, 2200-2 or std. with a min. climb of 245' per NM to 8900. FAR 135 AUTH: **Rwy 1**, ½ mile.

DEPARTURE PROCEDURE: **Rwy 1**, turn right. All aircraft climb direct TARGY LOM. Aircraft departing TARGY LOM on bearing 190° CW 220° climb on course. All others climb south on bearing 190° within 10 NM of TARGY LOM turn left and continue climbing direct TARGY LOM to cross TARGY LOM at or above: bearing 360° CW 190° 9300, bearing 220° CW 360° 10500

WHEATLAND, WY

PHIFER AIRFIELD

DEPARTURE PROCEDURE: **Rwy 8**, climbing left turn to 9000 via heading 030° to intercept IIP VOR/DME R-140 to JEEZY Int, thence... **Rwy 26**, climbing right turn to 9000 via heading 360° and GYZ NDB course 051° to ZEEZY INT, thence...

...continue climb-in-hold (hold northwest, right turn, 140° inbound) to 9000 before proceeding on course.

NOTE: **Rwy 8**, multiple trees 512' from departure end of runway, 584' left of centerline, 100' AGL/4859' MSL. **Rwy 26**, multiple trees, buildings, poles/lights, siren, roads w/ vehicles beginning 2' from departure end of runway, on centerline, to 488' left of centerline, 100' AGL/4899' MSL. Multiple trees, buildings, poles/lights, roads w/ vehicles beginning 2' from departure end of runway, on centerline to 499' right of centerline, 100' AGL/4859' MSL.

WHIDBEY ISLAND NAS (AULT FIELD) (NUW)

OAK HARBOR, WA. 07186

Diverse departures not authorized.

MILITARY DEPARTURE PROCEDURE: **Rwy 7:**

Minimum climb of 430'/NM until 600. Climbing left turn to 2000, intercept NUW R-067, expect radar vectors to join assigned route. **Rwy 14:** Climbing left turn to 2000, intercept NUW R-128, expect radar vectors to join assigned route. **Rwy 25:** Climb to 2000 via heading 249°, expect radar vectors to join assigned route. **Rwy 32:** Climb to 2000 via heading 317°, expect radar vectors to join assigned route. **ALL RWYS:** If vectors are not received by 10 DME of NUW TACAN, climb to 3000, intercept the NUW 11 DME ARC to join assigned route. CIVIL DEPARTURE PROCEDURE: **Rwy 7:**

Minimum climb of 270'/NM until 700. Climbing left turn to 2000 via heading 067°, expect radar vectors to join assigned route. **Rwy 14:** Climbing left turn to 2000, via heading 128°, expect radar vectors to join assigned route. **Rwy 25:** Use published DP or climb to 2000 via heading 249°, expect radar vectors to join assigned route. **Rwy 32:** Climb to 2000 via heading 317°, expect radar vectors to join assigned route. **ALL**

RWYS: If vectors are not received by 10 DME of NUW TACAN, climb to 3000, proceed direct CVV VOR/DME to join assigned route. TAKEOFF OBSTACLES: **Rwy 7:** Terrain, 7813' from DER, 2469' left of centerline, 276' MSL. Trees, 4274' from DER, 5472' left of centerline, 472' MSL. Trees, 5239' from DER, 6257' left of centerline, 495' MSL. Trees, 8561' from DER, 3685' left of centerline, 426' MSL. Trees, 12,561' from DER, 4814' right of centerline, 462' MSL. Terrain, 11,843' from DER, 7129' left of centerline, 502' MSL. Trees, 15,361' from DER, 4015' right of centerline, 521' MSL.

WORLAND, WY

WORLAND MUNI

TAKE-OFF MINIMUMS: **Rwys 4, 10, 22, 28,** NA.

Rwy 16, 300-2 or std. with a min. climb of 230' per NM to 4600.

DEPARTURE PROCEDURE: **All aircraft** climb to 5000, then direct RLY VOR/DME. Aircraft departing RLY R-061 CW R-349 climb on course. All others continue climb in RLY VOR/DME holding pattern (N, right turns, 159° inbound) to cross RLY VOR/DME at or above 7000.

YAKIMA, WA

YAKIMA AIR TERMINAL/MCALLISTER FIELD

TAKE-OFF MINIMUMS: **Rwy 4,** NA. **Rwy 9,** 800-4 or std. with a min. climb of 300' per NM to 5000. **Rwys 22, 27,** 2500-3 or std. with a min. climb of 300' per NM to 5200.

DEPARTURE PROCEDURE: **Rwy 4,** NA. **Rwys 9, 22, 27,** Use ZILLA DEPARTURE PROCEDURE.

LOC I-AWO	APP CRS	Rwy Idg	5332
111.5	339°	TDZE	131
		Apt Elev	137

LOC RWY 34

ARLINGTON MUNI (AWO)

▼ Inoperative table does not apply to Cat C.
▲NA Use Arlington altimeter setting, if not received use Whidbey Island NAS altimeter setting and increase all MDAs 100 feet.

MAIS

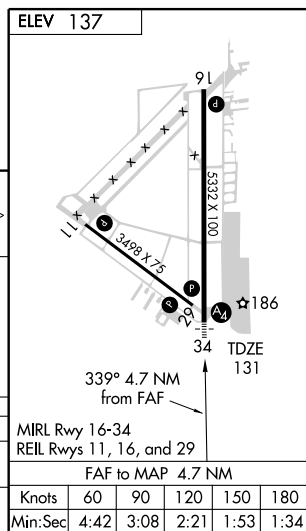
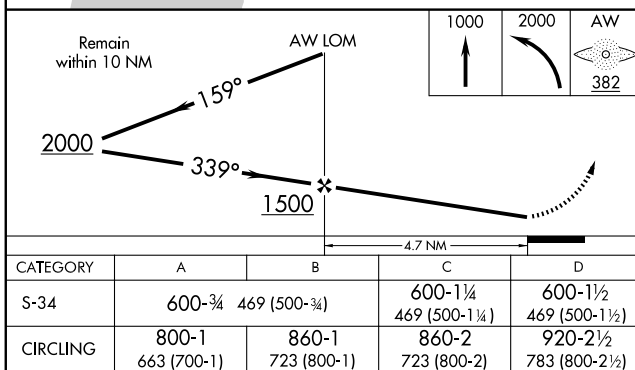
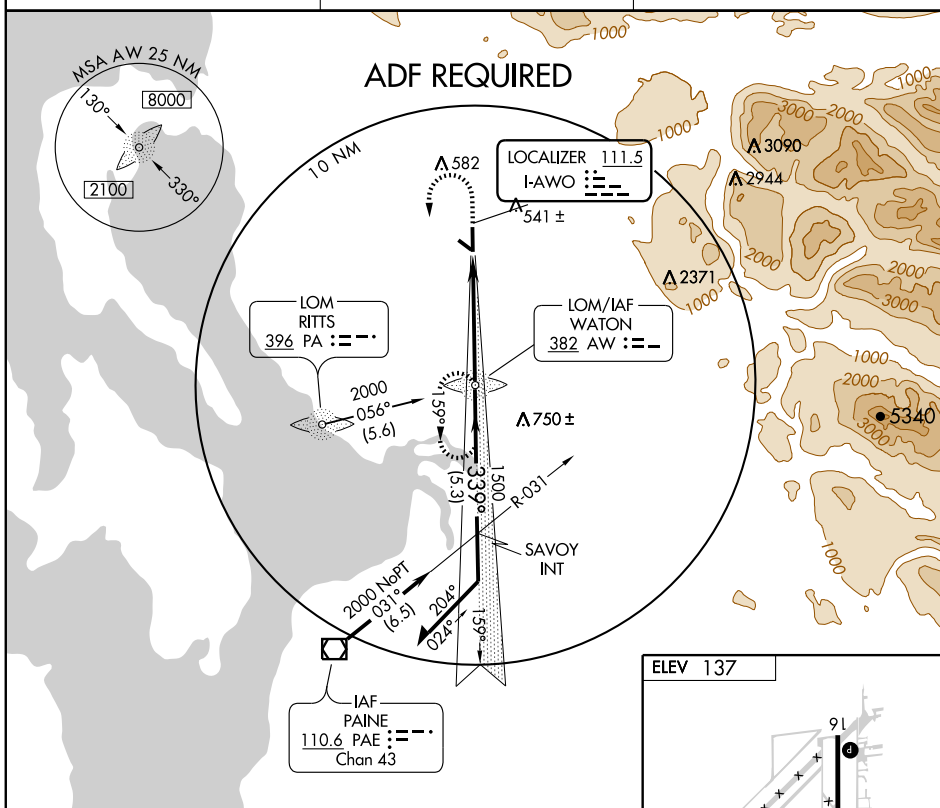


MISSED APPROACH: Climb to 1000 then climbing left turn to 2000 direct AW LOM and hold.

AWOS-3
135.625

SEATTLE CENTER
128.5 306.9

UNICOM
122.7 (CTAF) 0



NDB or GPS RWY 34

ARLINGTON MUNI (AWO)

T Inoperative table does not apply to Cat C.
A Use Arlington altimeter setting, if not received use Whidbey Island NAS altimeter setting and increase all MDAs 100 feet.

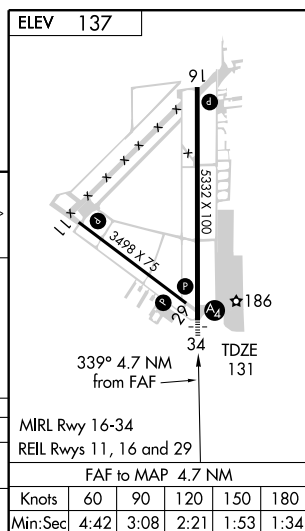
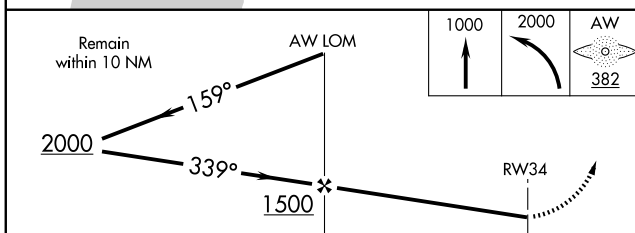
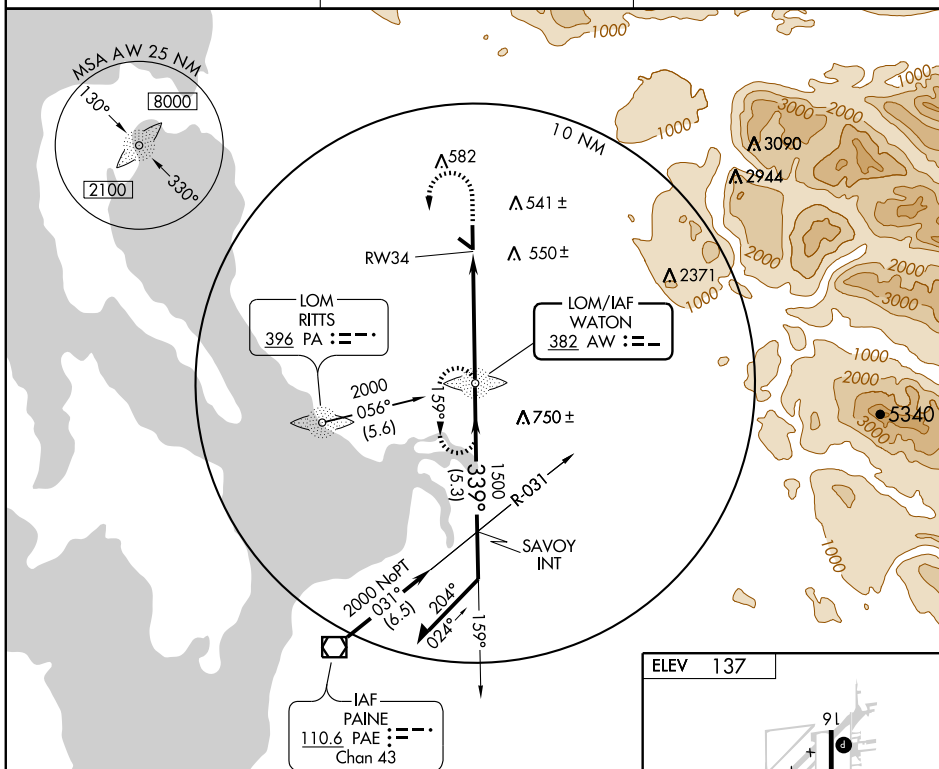
MALS


MISSED APPROACH: Climb to 1000 then climbing left turn to 2000 direct AW LOM and hold.

AWOS-3
135.625

SEATTLE CENTER
128.5 306.9

UNICOM
122.7 (CTAF) 0



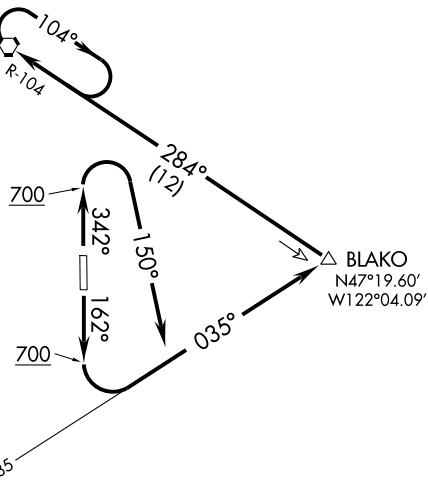
SEATTLE CLNC DEL
128.0
SEATTLE DEP CON
123.85

TAKE-OFF MINIMUMS

RWY 16: Standard with minimum climb of 266' per NM to 1200 or 1200-2½ for climb in visual conditions, do not exceed 180 KIAS until passing BLAKO.

RWY 34: Standard with minimum climb of 300' per NM to 900 or 1200-2½ for climb in visual conditions, do not exceed 180 KIAS until passing BLAKO.

SEATTLE
116.8 SEA
Chan 115
N47°26.12' W122°18.58'
L-1, H-1



McCHORD
109.6 TCM
Chan 33

TAKE-OFF OBSTACLE NOTES:

RWY 16: AAO 3.2 NM from DER, 3643' left of centerline 200' AGL/724' MSL.

RWY 34: AAO 3.2 NM from DER, 5520' right of centerline 200' AGL/639' MSL. Powerline 1804' from DER, on centerline, 80' AGL/122' MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 16: Climb heading 162° to 700, then climbing left turn to 3000 via the TCM R-035 to BLAKO INT then left turn via the SEA R-104 to SEA VORTAC; or climb in visual conditions east of RWY 16/34 to cross Auburn Muni southbound at or above 1200', then climb to 3000 via heading 150° and TCM R-035 to BLAKO INT then left turn via the SEA R-104 to SEA VORTAC. Do not exceed 180 KIAS until passing BLAKO. Thence....

TAKE-OFF RUNWAY 34: Climb heading 342° to 700, then climbing right turn to 3000 via heading 150° to TCM R-035 to BLAKO INT then left turn via the SEA R-104 to SEA VORTAC; or climb in visual conditions east of RWY 16/34 to cross Auburn Muni southbound at or above 1200', then climb to 3000 via heading 150° and TCM R-035 to BLAKO INT then left turn via the SEA R-104 to SEA VORTAC. Do not exceed 180 KIAS until passing BLAKO. Thence....

....hold E SEA VORTAC, RT, 284° inbound; when authorized by ATC, climb-in-hold to 5000, or as assigned before proceeding on course.

APP CRS	Rwy Idg	N/A
331°	TDZE	N/A
	Apt Elev	63

RNAV (GPS)-A
AUBURN MUNI (S50)

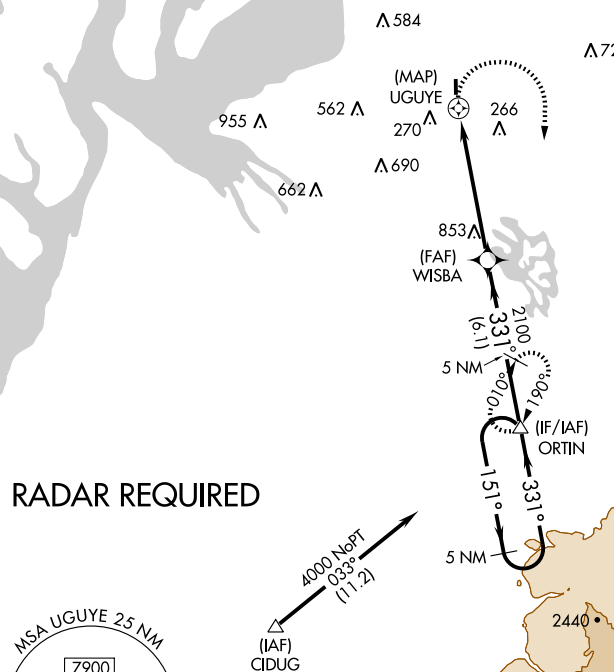
T	Circling NA west of Rwy 16-34.
A NA	Procedure NA at night. DME/DME RNP-0.3 NA. Use Seattle-Tacoma Intl altimeter setting.

MISSED APPROACH: Climbing right turn to 6000 direct
ORTIN and hold, continue climb-in-hold to 6000.

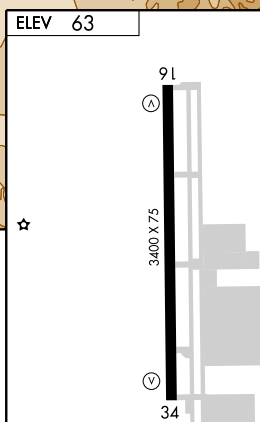
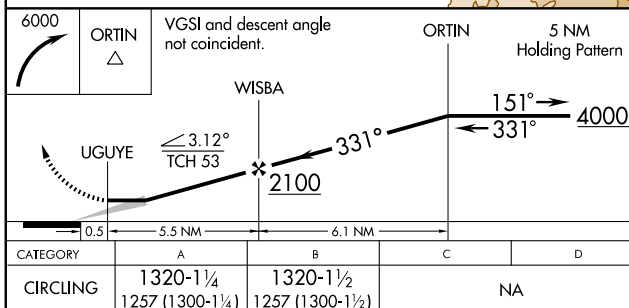
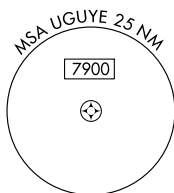
SEATTLE APP CON
123.85

UNICOM
122.8 (CTAF)

Procedure NA for arrivals at CIDUG via V495 southbound.



RADAR REQUIRED



MIRL Rwy 16-34
REIL Rwy 16 and 34

AIRPORT DIAGRAM

AL-45 (FAA)

BELLINGHAM INTL (BLI)
BELLINGHAM, WASHINGTON

ATIS
134.45
BELLINGHAM TOWER ★
124.9 379.3
GND CON
127.4 379.3

ILS
CRITICAL
AREA

ELEV
163

91

162.5

48°48'N

RWY 16-34
S75, D160, ST175, DT250

HOT
CARGO

COMMERCIAL
AIRCRAFT
PARKING

TERMINAL

US
CUSTOMS

FIRE
STATION

CONTROL
TOWER
247

FBO

TRANSIENT
PARKING

GENERAL
AVIATION
HANGARS

GENERAL
AVIATION
PARKING

HANGAR

ILS
CRITICAL
AREA

FIELD
ELEV
170

34

342.5

NOTE: THIS AREA NOT VISIBLE
FROM TOWER

48°47'N

122°32.5'W


122°32'W

122°31.5'W

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

NW-1, 17 DEC 2009 to 14 JAN 2010

ILS or LOC RWY 16
BELLINGHAM INTL (BLI)

- | | |
|---|---|
| MALSR
 | MISSED APPROACH: Climb to 700 then climbing right turn to 2000 via heading 271° and YVR VORTAC R-131 to TECUV INT/YVR 15.3 DME and hold. |
|---|---|

ELEV 170

160° 5.5 NM
from FAF

9L

198 ±

TDZE
163

6701 x 150

TWR
247

220 ±

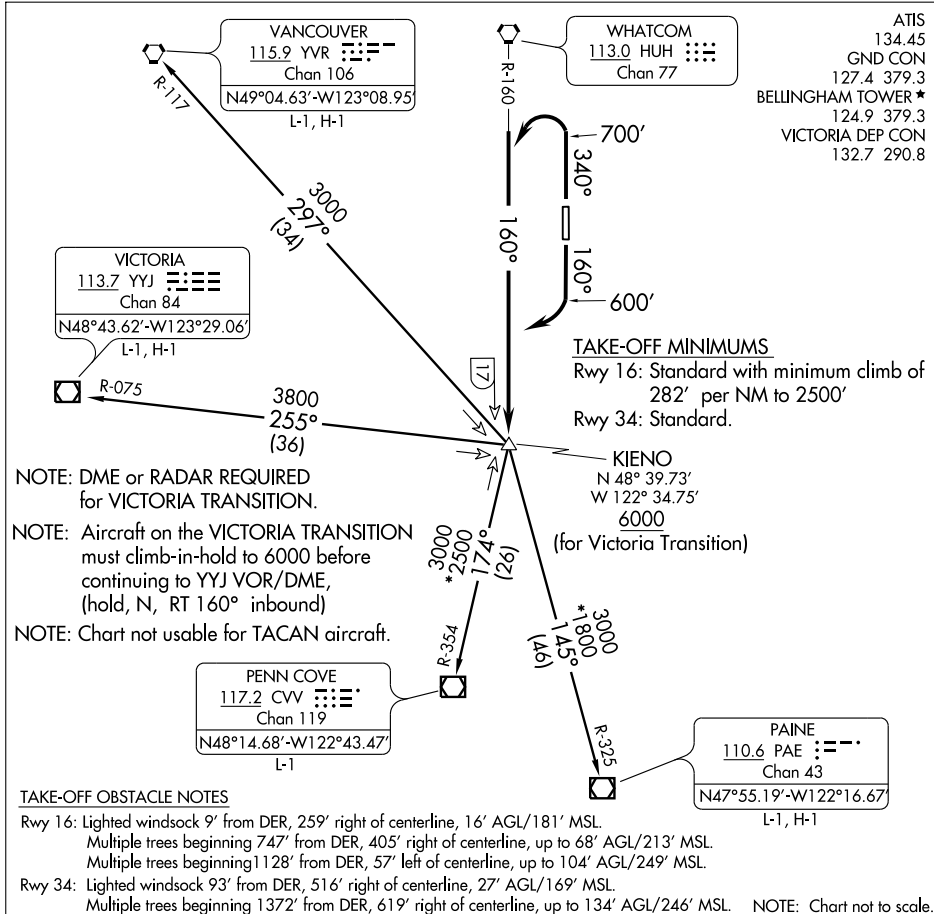
34 REIL Rwy

34 HIRL Rwy

260 ±

FAF to MAP 5.5 NM

One Minute Holding Pattern 		SECOC I-BLI 12.8	WUGUT INT I-BLI 6.8	700 ↑	2000 ↻ 271°	YVR R-131 115.9	TECUV △
2000 ← 340° 160° →		2000 ↗	2000 ↘	2000 ↘	I-BLI 2.1	I-BLI 1.2	
GS 3.00° TCH 50		6 NM	4.6 NM	0.9			
CATEGORY	A	B	C	D			
S-ILS 16	* 363/24 200 (200-½)						
S-LOC 16	500/24 337 (400-½)					500/40 337 (400-¾)	
CIRCLING	620-1 450 (500-1)		620-1½ 450 (500-1½)		720-2 550 (600-2)		



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 16: Climb heading 160° to 600', then climbing right turn to intercept HUH R-160 to KIENO INT, Thence....

TAKE-OFF RUNWAY 34: Climb heading 340° to 700', then climbing left turn to intercept HUH R-160 to KIENO INT. Thence....

....Maintain 3000 via assigned transition, expect requested altitude within 10 minutes.

PAINE TRANSITION (KIENO2.PAE): From over KIENO INT via PAE R-325 to PAE VOR/DME.

PENN COVE TRANSITION (KIENO2.CVV): From over KIENO INT via CVV R-354 to CVV VOR/DME.

VANCOUVER TRANSITION (KIENO2.YVR): From over KIENO INT via YVR R-117 to YVR VORTAC.

VICTORIA TRANSITION (KIENO2.YYJ): From over KIENO INT via YYJ R-075 to YYJ VOR/DME.

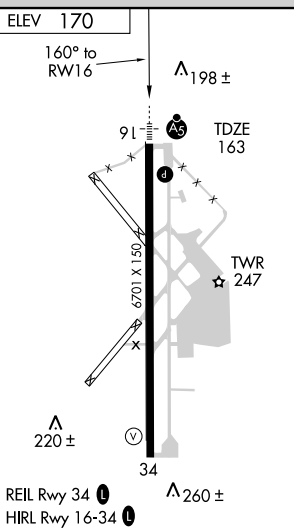
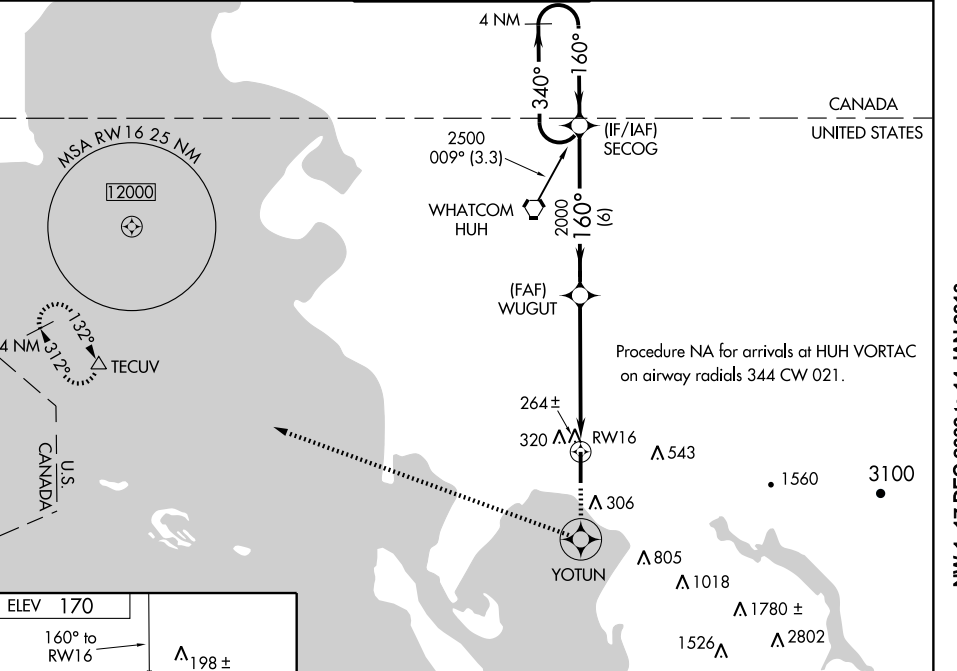
WAAS CH 45999 W16A	APP CRS 160°	Rwy Idg TDZE Apt Elev	6701 163 170
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⚠ For inoperative MALSR, increase LPV all Cats visibility to RVR 5000. Increase LNAV Cat D visibility to RVR 6000. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP -0.3 NA. Baro-VNAV and VDP NA when using Friday Harbor altimeter setting. If local altimeter setting not received, use Friday Harbor altimeter setting and increase all DA/MDAs 80 feet.

MALSR

MISSED APPROACH: Climb to 2000 direct YOTUN and right turn via 266° track to TECUV and hold.

ATIS 134.45	VICTORIA TERMINAL APP CON 132.7 290.8	BELLINGHAM TOWER★ 124.9 (CTAF) 0 379.3	GND CON 127.4 379.3	UNICOM 122.95
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<div>4 NM Holding Pattern</div> <div>SECOG</div> <div>WUGUT</div> <div>2000 ← 340° 160° → 2000</div> <div>GS 3.00° TCH 50</div>					<div>2000</div> <div>YOTUN</div> <div>TECUV</div> <div>266° track</div> <div>*LNAV only</div>				
<div>6 NM</div> <div>4.5 NM</div> <div>1 NM</div> <div>RW16</div> <div>*1 NM to RW16</div>									
CATEGORY		A		B		C		D	
LPV DA		442/24 279 (300-½)							
LNAV/ VNAV DA		554/40 391 (400-¾)							
LNAV MDA		520/24 357 (400-½)						520/50 357 (400-1)	
CIRCLING		620-1 450 (500-1)		620-1½ 450 (500-1½)		720-2 550 (600-2)			

NW-1, 17 DEC 2009 to 14 JAN 2010

RNAV (GPS) RWY 34
BELLINGHAM INTL (BLI)

MISSED APPROACH: Climb to 3000 direct VASCU and via 326° track to HUH VORTAC and hold, continue climb-in-hold to 3000.

UNICOM
122.95

LOC I-PWTT	APP CRS	Rwy Idg TDZE	6000
111.1	193°	Apt Elev	441
			444

ILS or LOC RWY 19
BREMERTON NATIONAL (PWT)

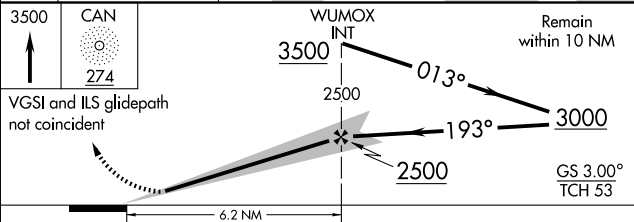
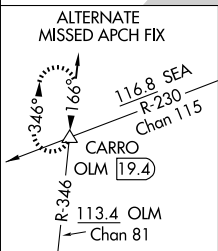
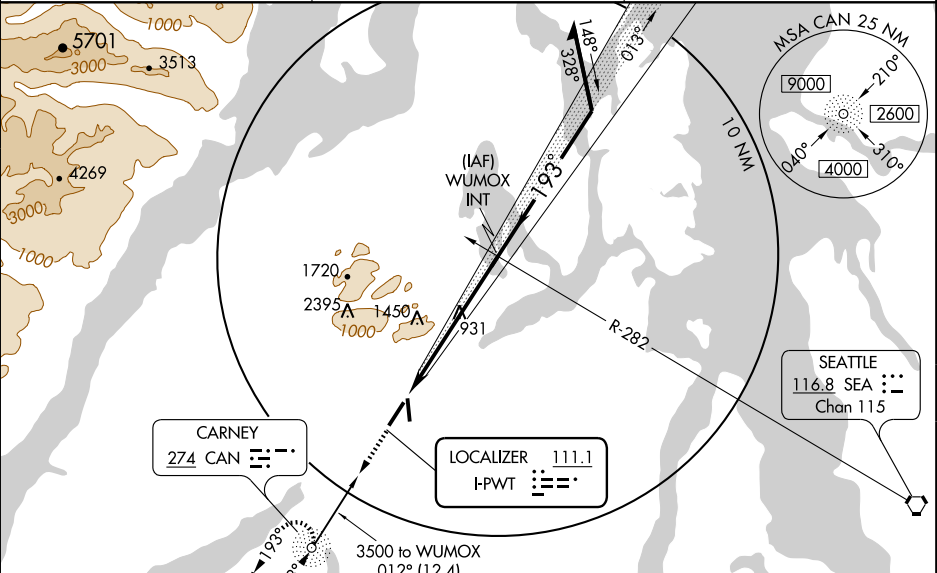
⚠ Circling NA for Cat. D west of Rwy 1-19. When local altimeter setting not received, use Seattle-Tacoma Intl altimeter setting and increase all DA/MDAs 60 feet and all visibilities 3/4 mile, inoperative table does not apply.

⚠ NA

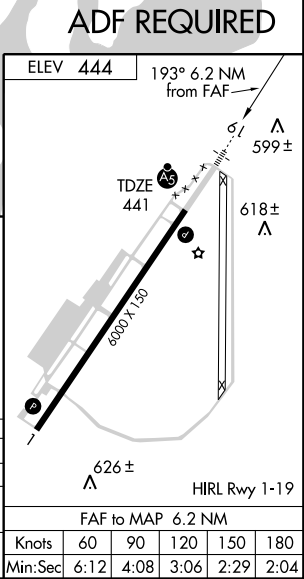
MALSR

MISSED APPROACH: Climb to 3500 direct CAN NDB and hold, continue climb-in-hold to 3500.

AWOS-3	SEATTLE APP CON	UNICOM
121.2	127.1 254.4	123.05 (CTAF) 0




CATEGORY	A	B	C	D
S-ILS 19	645-1/2 204 (300-1/2)			
S-LOC 19	1200-1/2 759 (800-1/2)	1200-3/4 759 (800-3/4)	1200-13/4 759 (800-13/4)	1200-2 759 (800-2)
CIRCLING	1200-1 756 (800-1)	1200-11/4 756 (800-11/4)	1200-21/4 756 (800-21/4)	1200-21/2 756 (800-21/2)

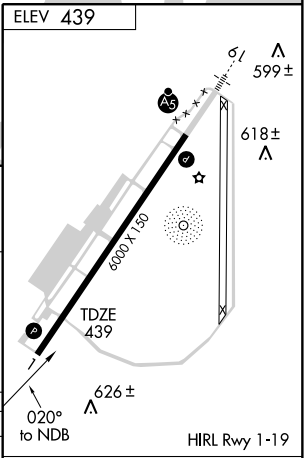
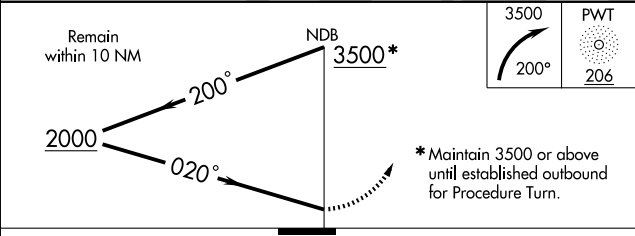
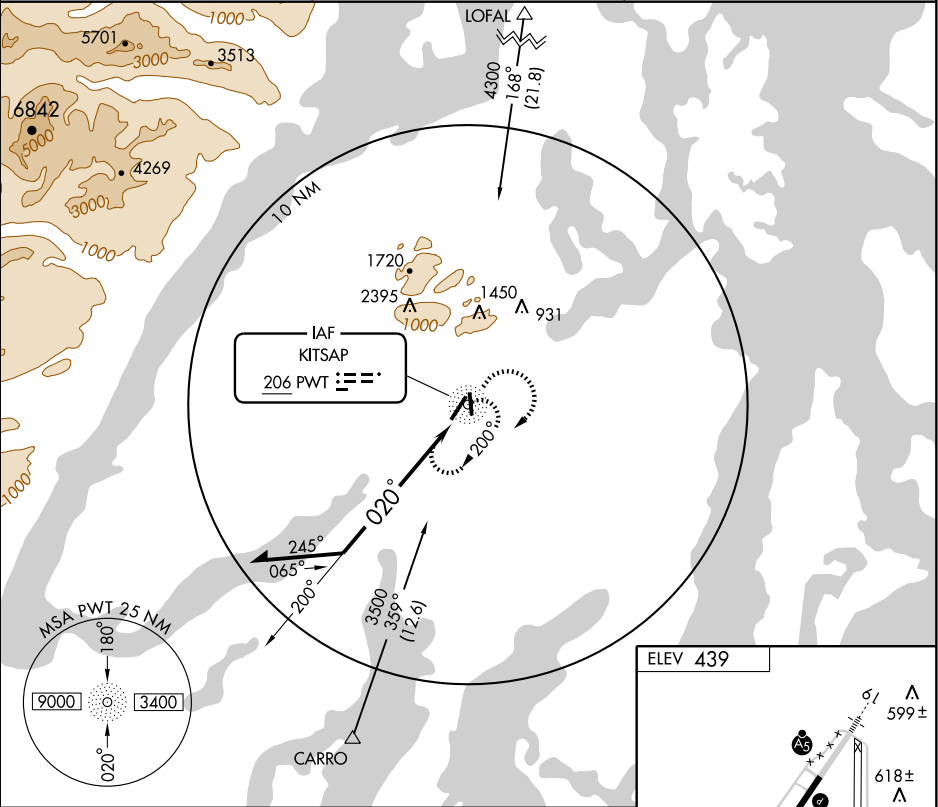


NDB PWT	APP CRS	Rwy Idg	6000
<u>206</u>	<u>020°</u>	TDZE	439
		Apt Elev	439

NDB RWY 1
BREMERTON NATIONAL (PWT)

 NA	Circling NA west of Rwy 1-19 for Cat.D.	MISSED APPROACH: Climbing right turn to 3500 via 200° bearing from PWT NDB, then direct PWT NDB and hold.
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AWOS-3 121.2	SEATTLE APP CON 127.1 254.4	UNICOM 123.05 (CTAF) 
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CATEGORY	A	B	C	D
S-1	980-1 541 (600-1)		980-1½ 541 (600-1½)	980-1¾ 541 (600-1¾)
CIRCLING	980-1 541 (600-1)		980-1½ 541 (600-1½)	1000-2 561 (600-2)

Knots	60	90	120	150	180
Min:Sec					

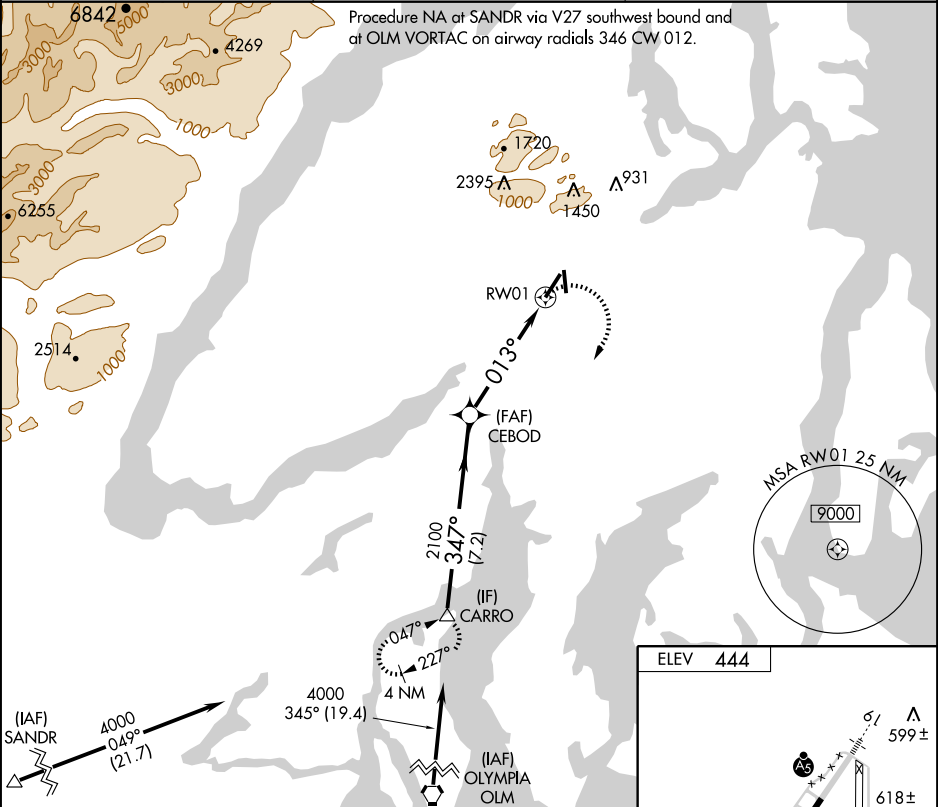
APP CRS	Rwy Idg	6000
013°	TDZE	444
	Apt Elev	444

RNAV (GPS) RWY 1
BREMERTON NATIONAL (PWT)

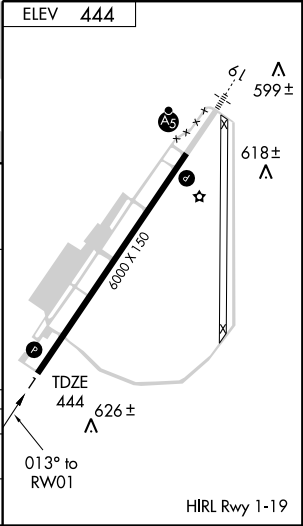
⚠ Circling NA for Cat. D west of Rwy 1-19.
⚠ DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.
When local altimeter setting not received, use Seattle-Tacoma
Intl altimeter setting and increase all MDAs 60 feet.

MISSED APPROACH: Climbing right turn to 4000 direct
CARRO and hold, continue climb-in-hold to 4000.

AWOS-3 121.2	SEATTLE APP CON 127.1 254.4	UNICOM 123.05 (CTAF) 📻
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	CARRO		CEBOD		RWY 1	
	4000		2100		4000	
	347°		013°		013°	
Procedure	Turn		NA		NA	
	7.2 NM		5 NM			
CATEGORY	A		B		D	
LNAV MDA	880-1 436 (500-1)		880-1½ 436 (500-1½)		880-1½ 436 (500-1½)	
CIRCLING	940-1 496 (500-1)		940-1½ 496 (500-1½)		1000-2 556 (600-2)	



WAAS CH 61106 W19A	APP CRS 193°	Rwy Idg TDZE Apt Elev	6000 441 444
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RNAV (GPS) RWY 19

BREMERTON NATIONAL (PWT)

⚠ Circling NA for Cat. D west of Rwy 1-19. DME/DME RNP-0.3 NA.

⚠ When local altimeter setting not received, use Seattle-Tacoma Intl altimeter setting and increase DA to 808 feet and all MDAs 60 feet, increase LPV visibility all Cats. 1/2 mile. Inoperative table does not apply to LNAV Cat. A and B. VDP NA when using Seattle-Tacoma Intl altimeter setting. For inoperative MALSR increase LPV visibility all Cats. 1/2 mile. Inoperative table does not apply to LNAV Cat. A and B.

MALSR

A5

MISSED APPROACH: Climb to 4000 direct CEBOD and via 167° track to CARRO and hold, continue climb-in-hold to 4000.

AWOS-3 121.2	SEATTLE APP CON 127.1 254.4	UNICOM 123.05 (CTAF) 0
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MISSED APCH FIX

4000

CEBOD

167° track

CARRO

047°

227°

4 NM

***LNAV only**

CEBOD

167° track

CARRO

VGSI and RNAV glidepath not coincident

WUMOX

3.5 NM to RWY 19

2.7 NM

6 NM

193°

2500

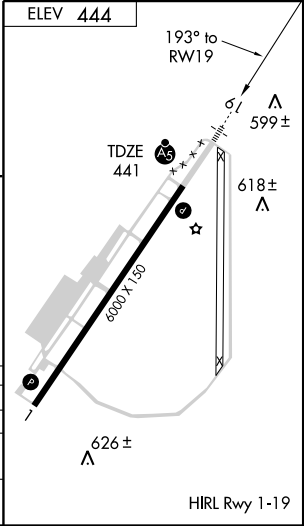
3400

Procedure Turn NA

GS 3.00°

TCH 53

CATEGORY	A	B	C	D
LPV DA	763-1/2	322 (400-1/2)		
LNAV MDA	1600-1/4 1159 (1200-1/4)	1600-1/2 1159 (1200-1/2)	1600-2/2 1159 (1200-2/2)	
CIRCLING	1600-1/4 1156 (1200-1/4)	1600-1/2 1156 (1200-1/2)	1600-3 1156 (1200-3)	



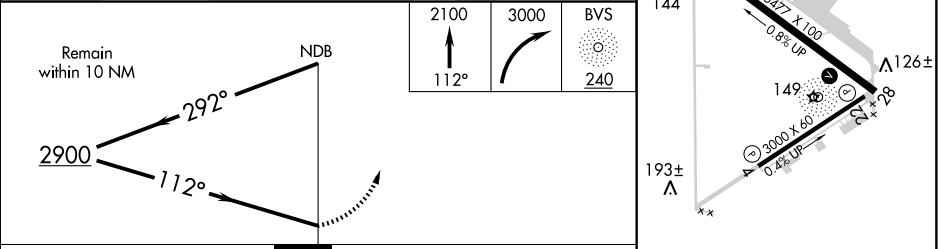
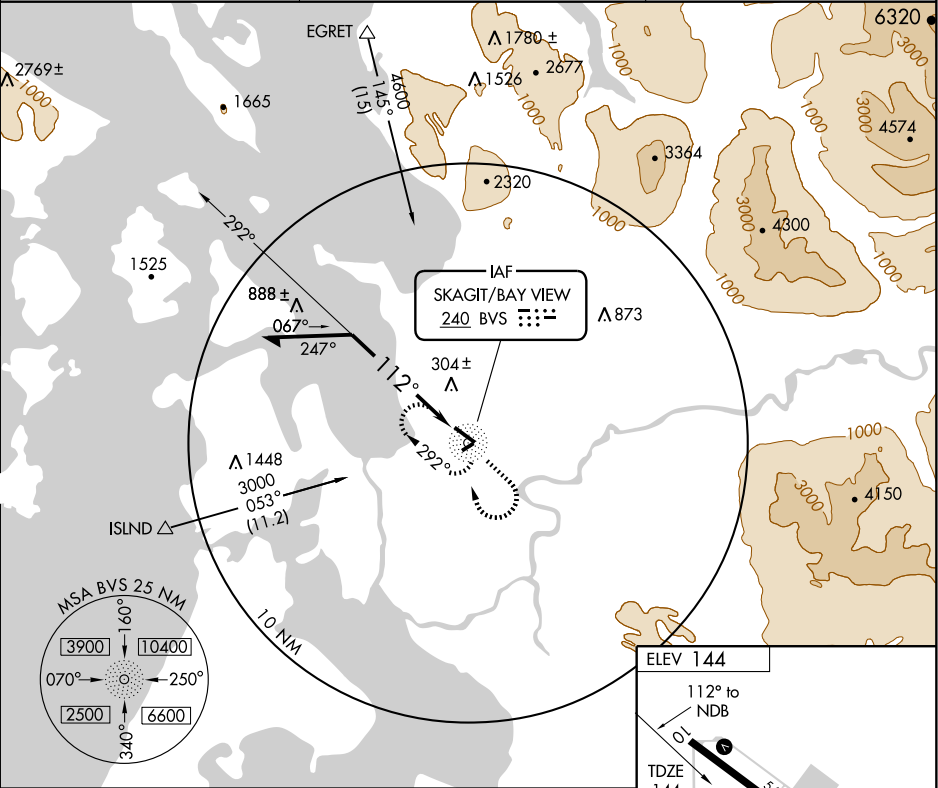
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Visibility reduction by helicopters NA.
When local altimeter setting not received, use Friday Harbor altimeter setting and increase all MDA 80 feet.

MISSED APPROACH: Climb to 2100 via 112° bearing from BVS NDB then climbing right turn to 3000 direct BVS NDB and hold.

AWOS-3 121.125	WHIDBEY APP CON ★ 120.7 270.8	UNICOM 123.075 (CTAF) 0
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CATEGORY	A	B	C	D
S-10	1400-1¼ 1256 (1300-1¼)	1400-1½ 1256 (1300-1½)	1400-3	1256 (1300-3)
CIRCLING	1400-1¼ 1256 (1300-1¼)	1400-1½ 1256 (1300-1½)	1400-3	1256 (1300-3)

LIRL Rwy 4-22 0

REIL Rws 10 and 28 0

MIRL Rwy 10-28 0

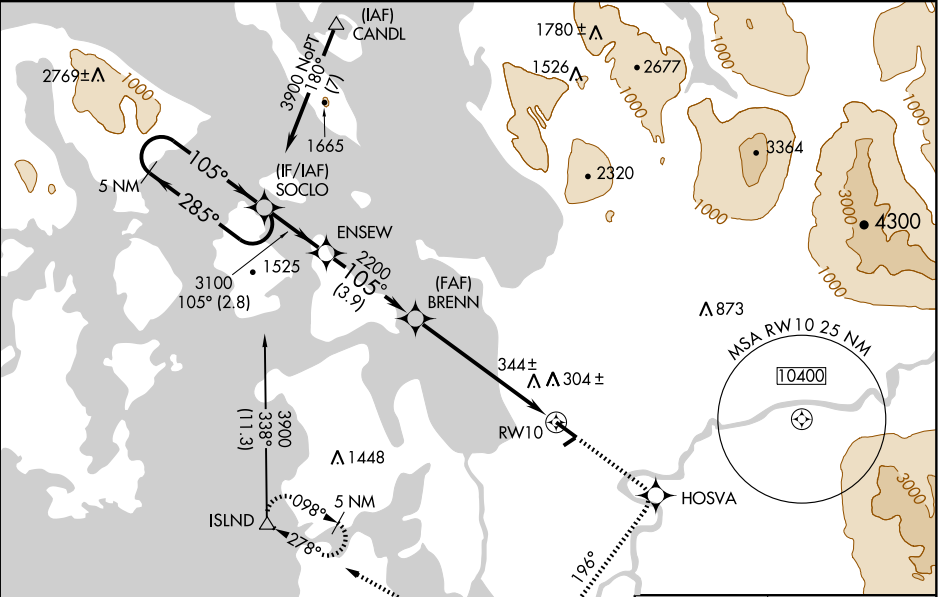
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For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (120°F). DME/DME RNP -0.3 NA. Visibility reduction by helicopters NA. Baro-VNAV NA when using Friday Harbor altimeter setting. When local altimeter setting not received, use Friday Harbor altimeter setting and increase all DA/MDA 80 feet, increase LPV and LNAV/VNAV all Cats, LNAV Cats C and D visibilities ¼ mile.

MISSED APPROACH: Climb to 5000 direct HOSVA and via 196° track to KIKYE and via 278° track to ISLND and hold, continue climb-in-hold to 5000.

AWOS-3 121.125	WHIDBEY APP CON ★ 120.7 270.8	UNICOM 123.075 (CTAF) ①
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5 NM Holding Pattern

SOCLO

5000

HOSVA

196° track

KIKYE

278° track

ISLND

3900

285°

105°

3100

2200

105°

RW10

GS 3.00°

TCH 40

2.8 NM

3.9 NM

6.2 NM

CATEGORY	A	B	C	D
LPV DA		497-1¼	353 (400-1¼)	
LNAV/VNAV DA		640-1¾	496 (500-1¾)	
LNAV MDA	620-1 476 (500-1)	620-1¼ 476 (500-1¼)	700-2 556 (600-2)	620-1½ 476 (500-1½)
CIRCLING	660-1 516 (600-1)	660-1½ 516 (600-1½)		

ELEV 144

105° to RW10

TDZE 144

5477 X 100

0.8% Up

149

3000 X 60

0.4% Up

193±

126±

LIRL Rwy 4-22 ①

REIL Rws 10 and 28 ①

MIRL Rwy 10-28 ①

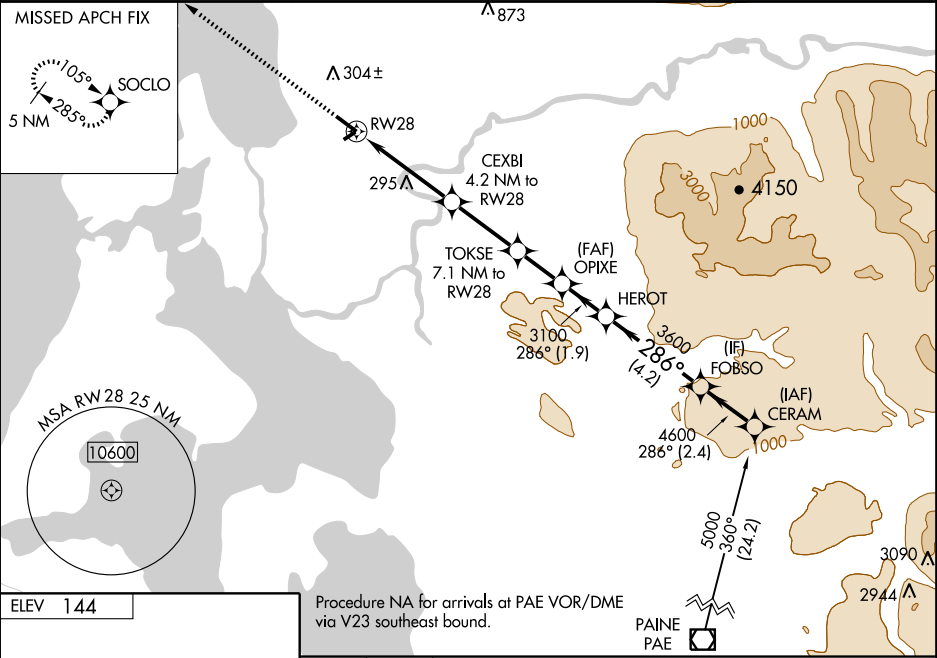
WAAS CH 70407 W28A	APP CRS 286°	Rwy Idg TDZE Apt Elev	5477 126 144
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RNAV (GPS) RWY 28

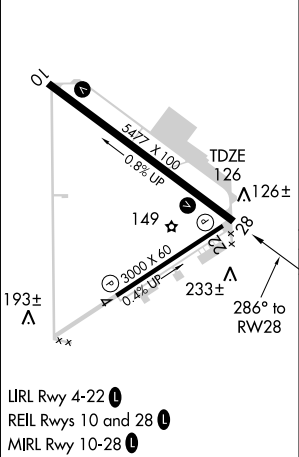
BURLINGTON/MOUNT VERNON/SKAGIT RGNL (BVS)

<p>⚠ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (120°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. VDP and Baro-VNAV NA when using Friday Harbor altimeter setting. When local altimeter setting not received, use Friday Harbor altimeter setting and increase all DA/MDA 80 feet, increase LPV and LNAV/VNAV all Cats, LNAV Cats C and D visibilities ¼ mile.</p>	<p>MISSED APPROACH: Climb to 4000 direct SOCLO and hold, continue climb-in-hold to 4000.</p>
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AWOS-3 121.125	WHIDBEY APP CON ★ 120.7 270.8	UNICOM 123.075 (CTAF) 0
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ELEV 144



4000	SOCLO	VGSI and RNAV glidepath not coincident				FOBSO
*LNAV only		TOKSE 7.1 NM to RWY 28	OPIXE	HEROT	FOBSO	4600
1.2 NM to RWY 28		CEXBI 4.2 NM to RWY 28	1480	2440*	3100	Procedure Turn NA
1.2		3 NM	2.9 NM	2 NM	1.9 NM	4.2 NM
CATEGORY	A	B	C	D		
LPV DA	421-1¼		295 (300-1¼)			
LNAV/VNAV DA	503-1½		377 (400-1½)			
LNAV MDA	600-1	474 (500-1)	600-1¼ 474 (500-1¼)	600-1½ 474 (500-1½)		
CIRCLING	660-1	516 (600-1)	660-1½ 516 (600-1½)	700-2 556 (600-2)		

APP CRS	Rwy Idg	5000
160°	TDZE	173
	Apt Elev	174

RNAV (GPS) RWY 16

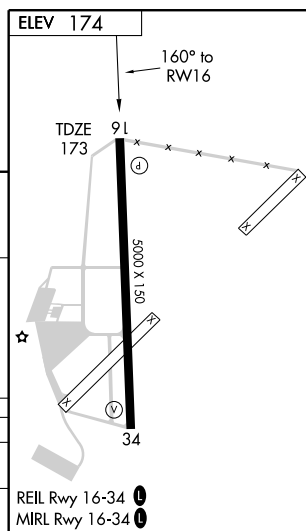
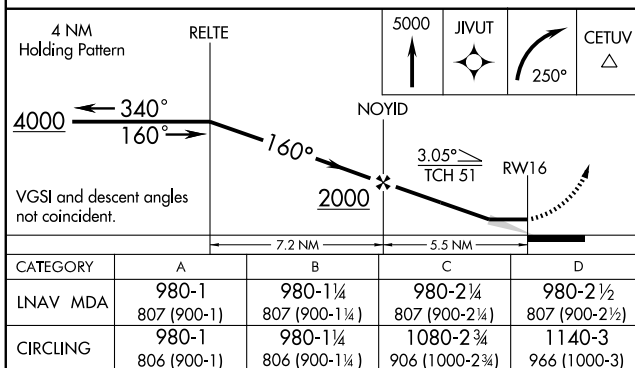
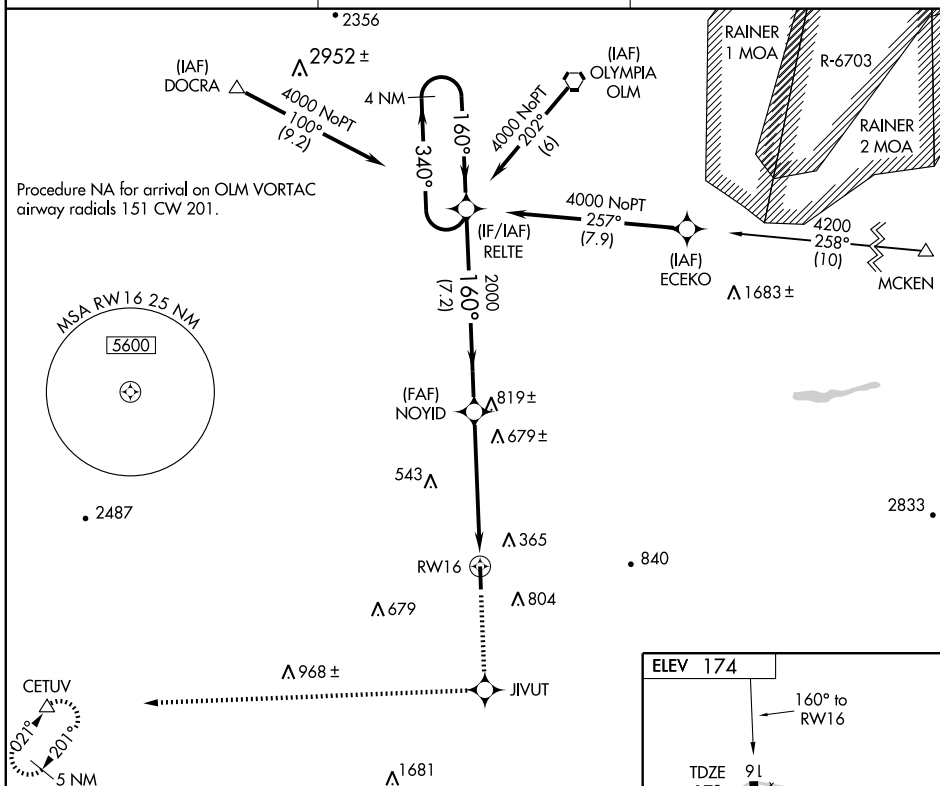
CHEHALIS-CENTRALIA (CLS)

T	DME/DME RNP- 0.3 NA.
A NA	Circling NA northeast of Rwy 16-34. Circling NA at night.

MISSED APPROACH: Climb to 5000 direct JIVUT and right turn via 250° track to CETUV and hold, continue climb-in-hold to 5000.

AWOS-3
118.025

SEATTLE APP CON
121.1 391.9

UNICOM
122.8 (CTAF) **L**

NDB DPY
216

APP CR
323°

Rwy Idg	TDZE	Apt Elev
1	100	100
2	100	100
3	100	100
4	100	100
5	100	100
6	100	100
7	100	100
8	100	100
9	100	100
10	100	100
11	100	100
12	100	100
13	100	100
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95	100	100
96	100	100
97	100	100
98	100	100
99	100	100
100	100	100

N/A
N/A
2211

NDB-A
DEER PARK (DEW)

T Circling NA west of Rwy 16-34.

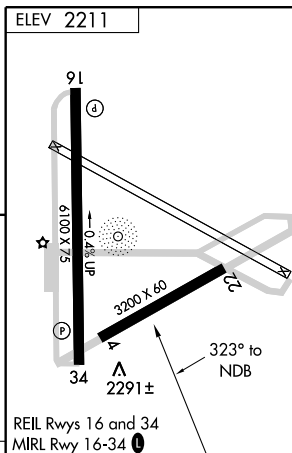
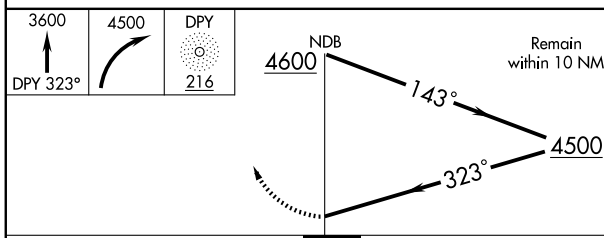
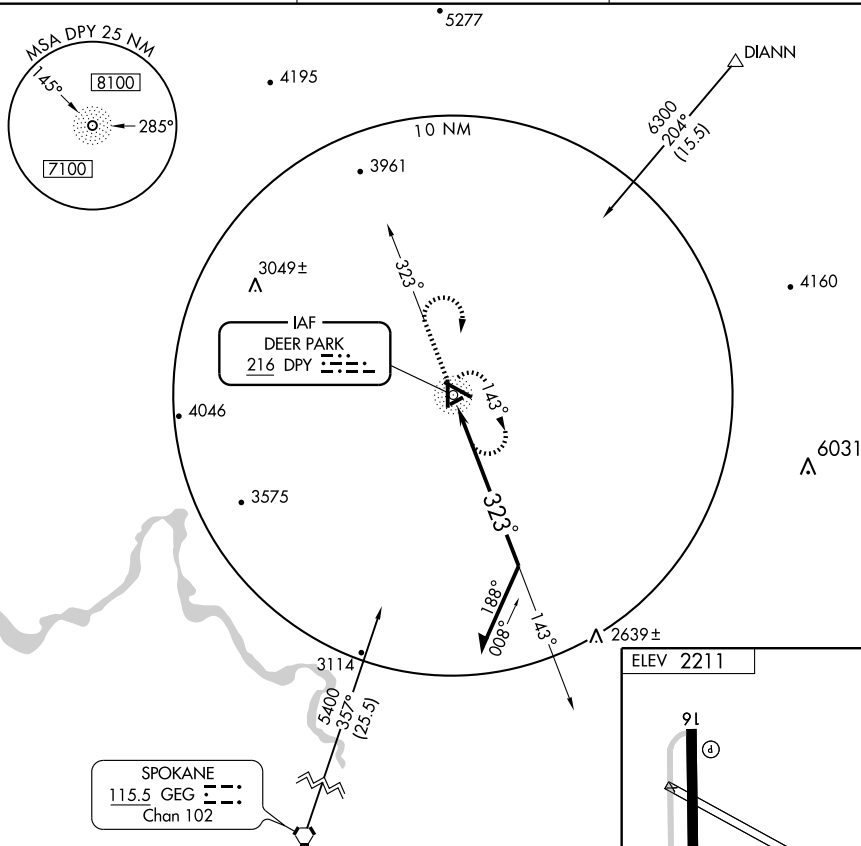
A_{NA} When local altimeter setting not received, use Spokane Intl altimeter setting and increase all MDAs 80 feet and all visibilities ¼ mile.

MISSED APPROACH: Climb to 3600 via 323° bearing from DPY NDB then climbing right turn to 4500 direct DPY NDB and hold.

ASOS
135.175

SPOKANE APP CON
123.75 282.25

UNICOM
123.0 (CTAF) **L**



CATEGORY	A	B	C	D						
CIRCLING	3000-1 789 (800-1)	3000-1¼ 789 (800-1¼)	3000-2¼ 789 (800-2¼)	3000-2½ 789 (800-2½)	Knots	60	90	120	150	180
					Min:Sec					

AL-9102 (FAA)

WAAS CH 61306 W34A	APP CRS 344°	Rwy Idg 6100 TDZE 2201 Apt Elev 2211
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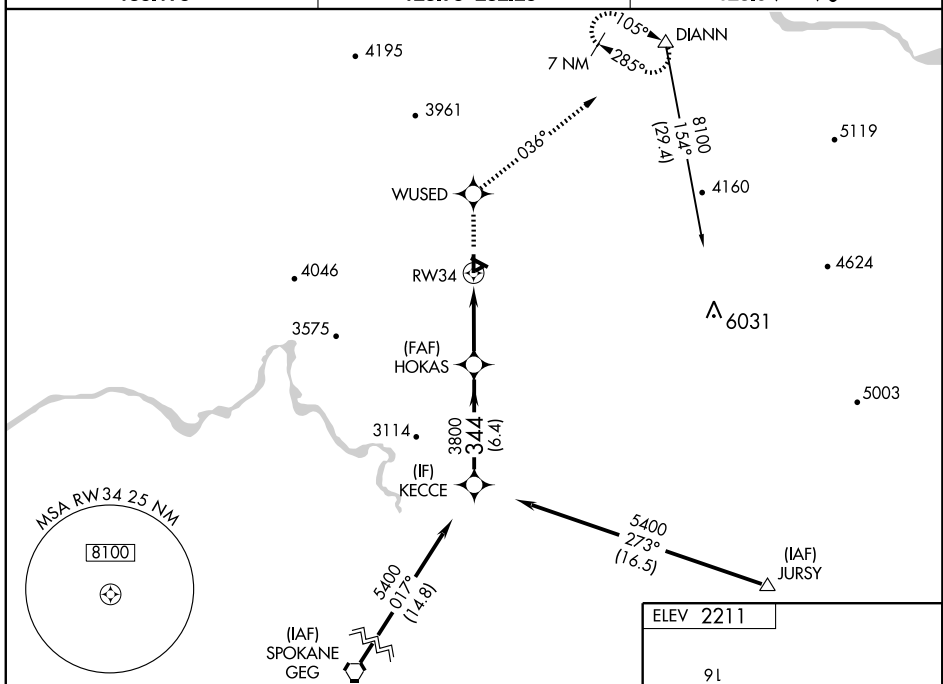
RNAV (GPS) RWY 34
DEER PARK (DEW)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 44°C (111°F).
When local altimeter setting not received, use Spokane Intl altimeter setting and increase all DA/MDAs 80 feet and all visibilities 1/4 mile.
Circling not authorized west of Rwy 16-34. DME/DME RNP 0.3 NA.
VDP and Baro-VNAV NA when using Spokane Intl altimeter setting.
Visibility reduction by helicopters NA.

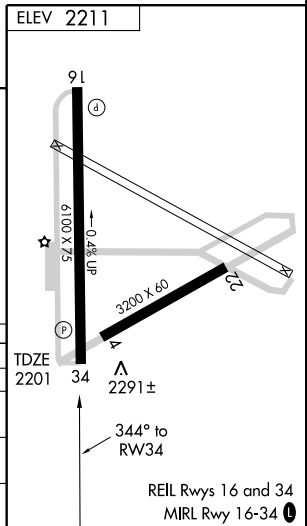
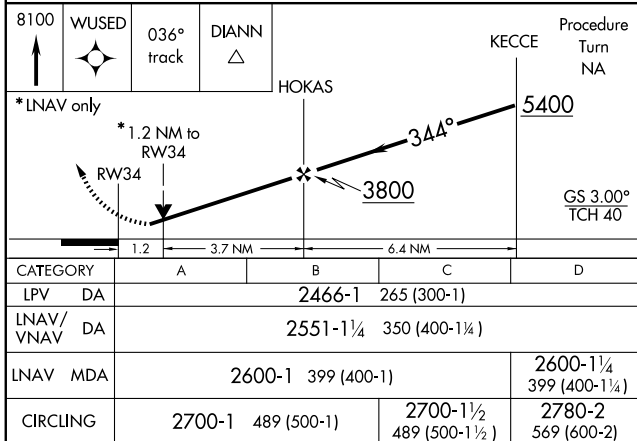
MISSED APPROACH: Climb to 8100 direct WUSED and via 036° track to DIANN and hold, continue climb-in- hold to 8100.

ASOS
135.175

SPOKANE APP CON
123.75 282.25

UNICOM
123.0 (CTAF) **L**

NW-1. 17 DEC 2009 to 14 JAN 2010



RNAV (GPS)-A

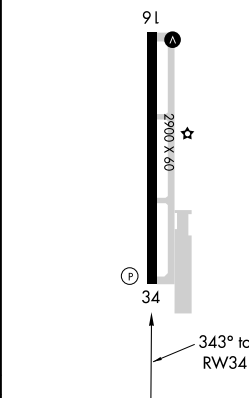
EASTSOUND/ORCAS ISLAND (ORS)

MISSED APPROACH: Climb To 2000
direct CIKVA and via track 032°
to HUH VORTAC and hold.

CTAF
128.25 **L**

Procedure NA for arrivals at CVV
VOR/DME via V165 southbound.

ELEV	31
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MIRL Rwy 16-34
REIL Rwy 16 and 34 **L**

APP CRS	Rwy Idg	5590
267°	TDZE	1755
	Apt Elev	1764

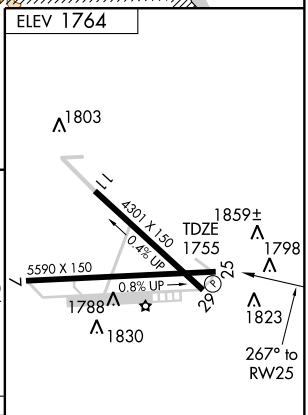
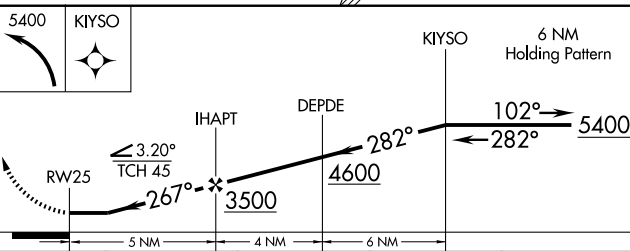
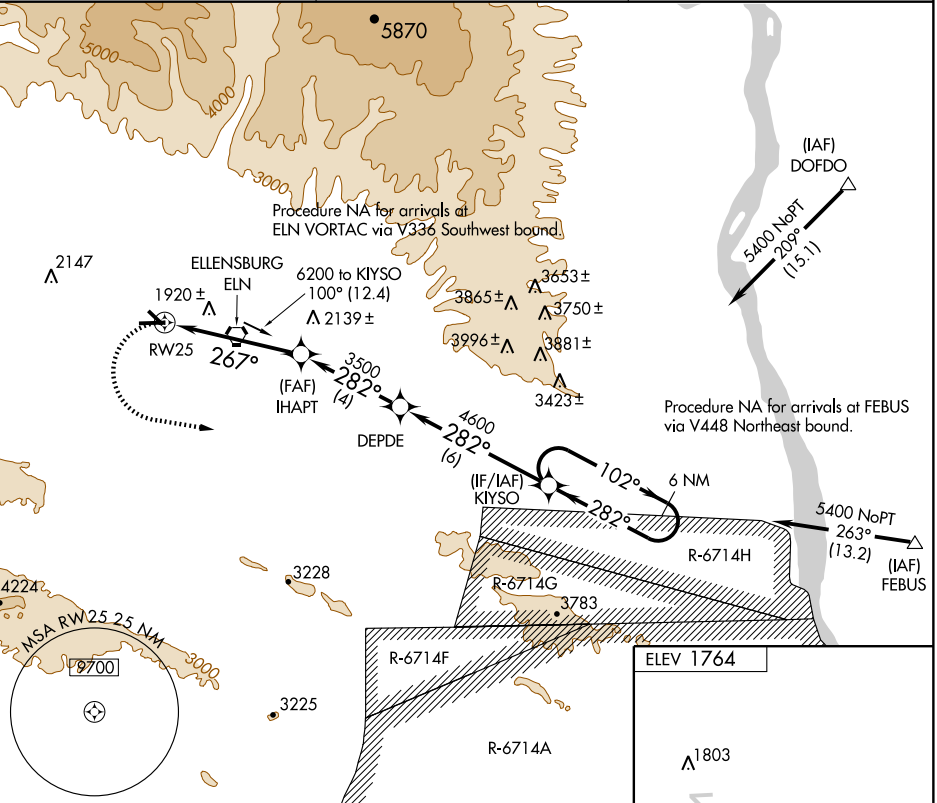
RNAV (GPS) RWY 25

ELLENSBURG/ BOWERS FIELD (ELN)

⚠ Straight-in minimums not authorized at night. DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. Procedure not authorized when R-6714A, F, G, H are in operation. When local altimeter setting not received, use Wenatchee altimeter setting and increase all MDA 140 feet and increase visibility LNAV Cat. B ¼ mile, Cats. C/D ½ mile, and increase circling visibility Cat. B ¼ mile, Cats. C/D ½ mile.

MISSED APPROACH:
Climbing left turn to 5400
direct KIYSO and hold.

ASOS 118.375	SEATTLE CENTER 132.6 269.35	UNICOM 123.0 (CTAF) ①
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CATEGORY	A	B	C	D
LNAV MDA	2360-1 605 (600-1)	2360-1¾ 605 (600-1¾)	2360-2 605 (600-2)	2360-2 605 (600-2)
CIRCLING	2360-1 596 (600-1)	2360-1¾ 596 (600-1¾)	2360-2 736 (800-2¼)	2360-2 736 (800-2¼)

REIL Rwy 29

MRL Rwy 11-29 ①

NW-1..17 DEC 2009 to 14 JAN 2010

APP CRS
297°

Rwy Idg
TDZE
Apt Elev

4301
1759
1764

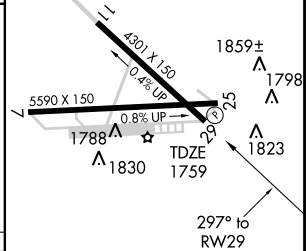
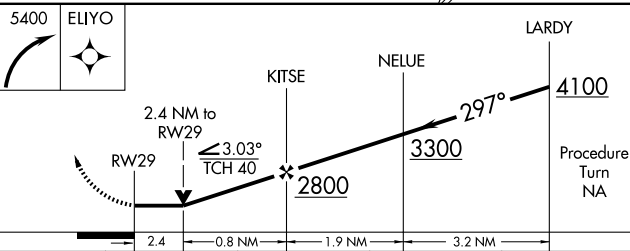
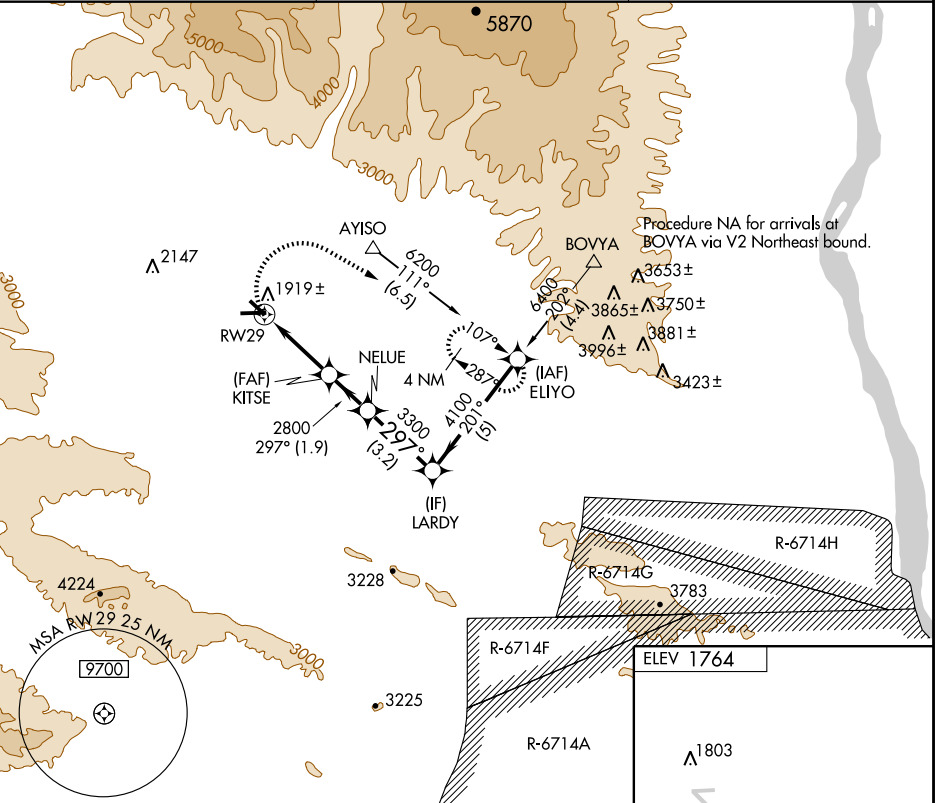
RNAV (GPS) RWY 29

ELLENSBURG/ BOWERS FIELD (ELN)

⚠ DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Wenatchee altimeter setting and increase all MDA 140 feet and increase visibility LNAV Cat. A and circling Cat. A ¼ mile. VDP NA when using Wenatchee altimeter setting.

MISSED APPROACH: Climbing right turn to 5400 direct ELIYO and hold, continue climb-in hold to 5400.

ASOS 118.375	SEATTLE CENTER 132.6 269.35	UNICOM 123.0 (CTAF) ①
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CATEGORY	A	B	C	D
LNAV MDA	2560-1 801 (800-1)	2560-1¼ 801 (800-1¼)	NA	
CIRCLING	2560-1 796 (800-1)	2560-1¼ 796 (800-1¼)	NA	

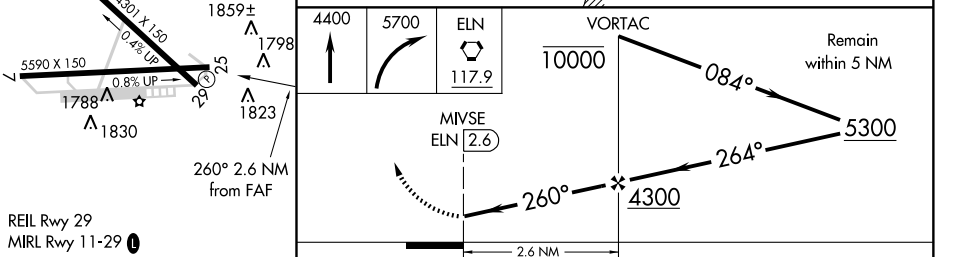
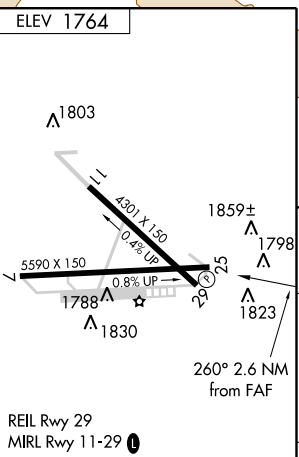
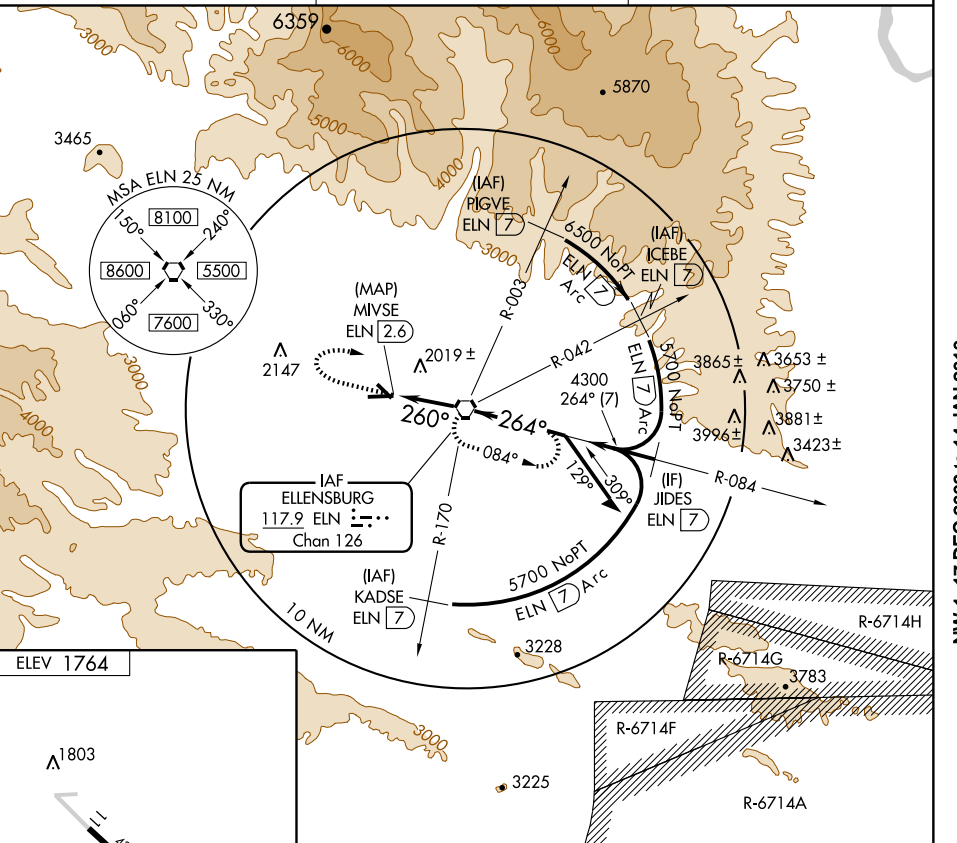
REIL Rwy 29
MIRL Rwy 11-29 ①

NW-1. 17 DEC 2009 to 14 JAN 2010

When local altimeter setting not received, use Wentachee altimeter setting.

MISSED APPROACH: Climb to 4400 then climbing right turn to 5700 direct to ELN VORTAC and hold, continue climb-in-hold to 5700.

ASOS 118.375	SEATTLE CENTER 132.6 269.35	UNICOM 123.0 (CTAF)
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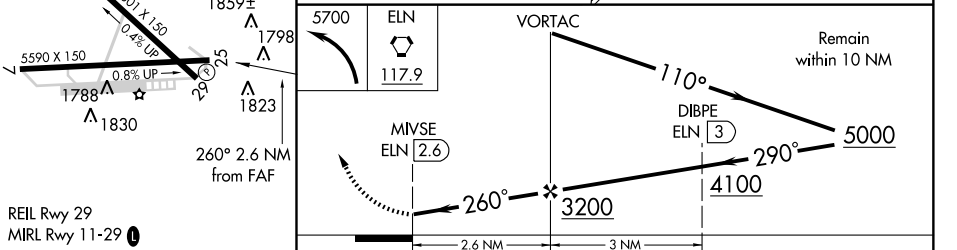
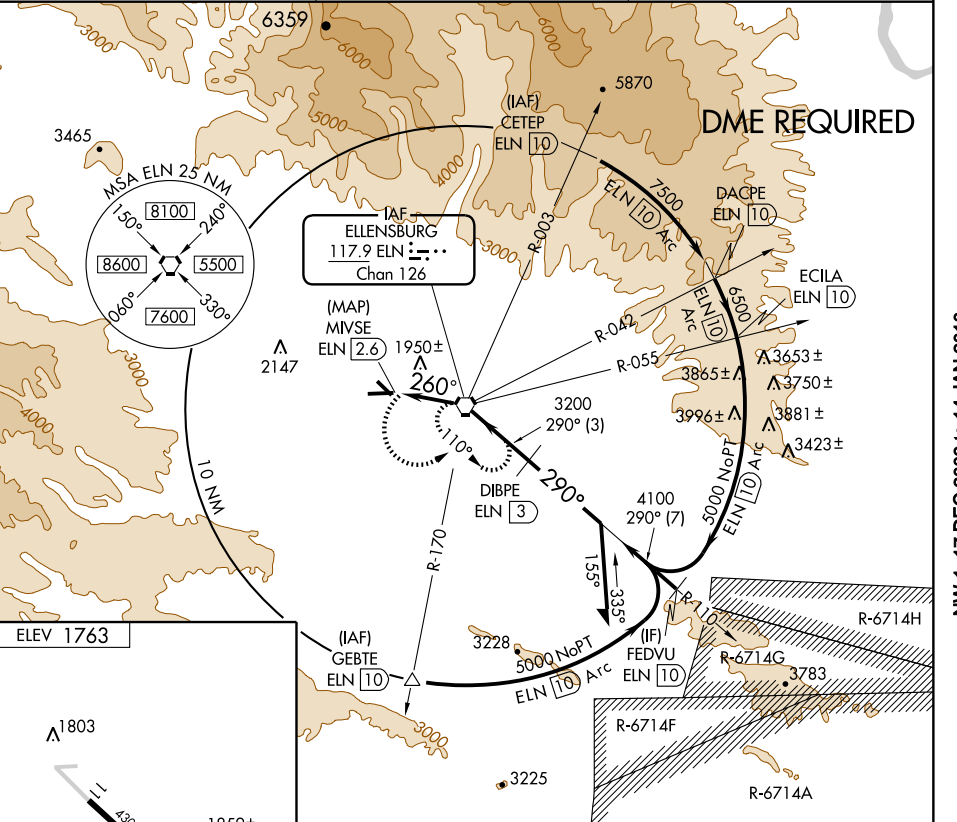
FAF to MAP 2.6 NM						CATEGORY	A	B	C	D
Knots	60	90	120	150	180	CIRCLING	3260-1¼		NA	
Min:Sec	2:36	1:44	1:18	1:02	0:52		1496 (1500-1¼)			

▽ If local altimeter setting not received, use Wenatchee altimeter setting and increase all MDAs 140 feet.

△ NA Procedure not authorized when R-6714A, F, G, H are in operation.

MISSED APPROACH: Climbing left turn to 5000 direct to ELN VORTAC and hold.

ASOS 118.375	SEATTLE CENTER 132.6 269.35	UNICOM 123.0 (CTAF) 0
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FAF to MAP 2.6 NM						CATEGORY	A	B	C	D
Knots	60	90	120	150	180	CIRCLING	2280-1	2340-1	NA	
Min:Sec	2:36	1:44	1:18	1:02	0:52		517 (600-1)	577 (600-1)		

NW-1, 17 DEC 2009 to 14 JAN 2010

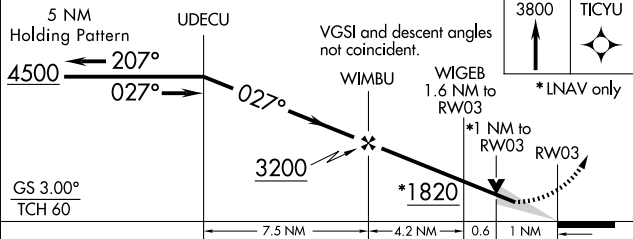
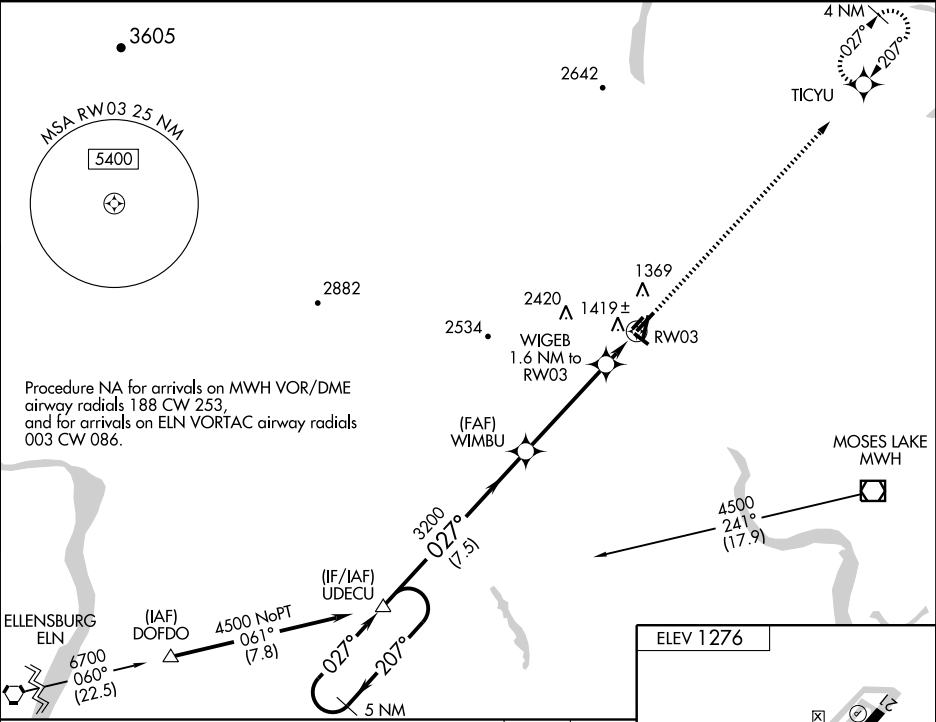
WAAS CH 50208 W03A	APP CRS 027°	Rwy Idg TDZE Apt Elev	5500 1269 1276
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RNAV (GPS) RWY 3
EPHRATA MUNI (EPH)

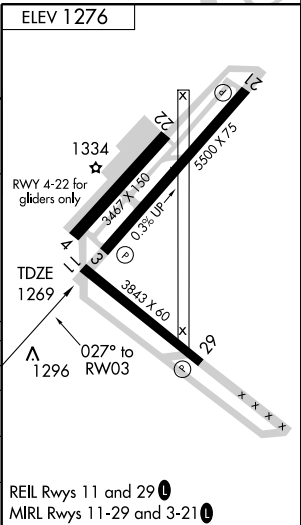
⚠ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP-0.3 NA, VDP and Baro-VNAV NA when using Moses Lake/Grant County Intl altimeter setting. When local altimeter setting not received, use Moses Lake/Grant County Intl altimeter setting and increase all DA/MDA 40 feet and LNAV Cat D visibility ¼ mile.

MISSED APPROACH: Climb to 3800 direct TICYU and hold.

ASOS 135.775	GRANT COUNTY APP CON ★ 126.4 379.95	UNICOM 122.8 (CTAF) 0
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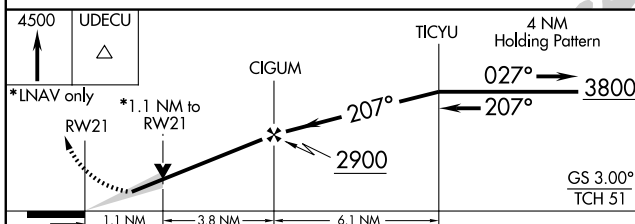
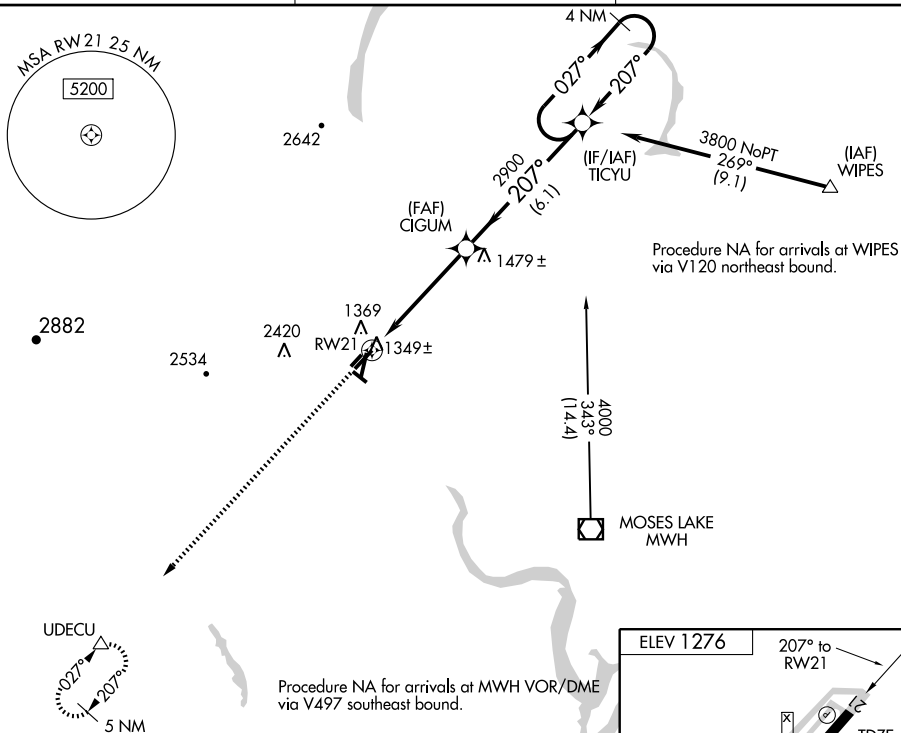


CATEGORY	A	B	C	D
LPV DA	1519-1	250 (300-1)		
LNAV/VNAV DA	1689-1½	420 (500-1½)		
LNAV MDA	1680-1	411 (500-1)	1680-1¼	411 (500-1¼)
CIRCLING	1720-1 444 (500-1)	1740-1 464 (500-1)	1780-1½ 504 (600-1½)	2500-3 1224 (1300-3)

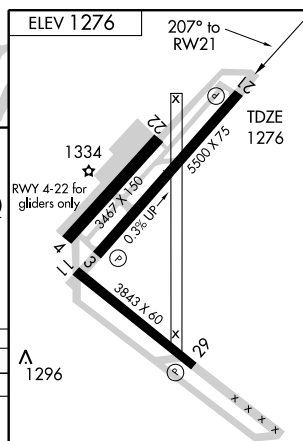


RNAV (GPS) RWY 21
EPHRATA MUNI (EPH)

MISSED APPROACH: Climb to 4500 direct UDECU and hold.

UNICOM
122.8 (CTAF) **L**

CATEGORY		A	B	C	D
LPV	DA	1526-1		250 (300-1)	
LNAV/ VNAV	DA	2169-4		893 (900-4)	
LNAV	MDA	1660-1 384 (400-1)			1660-1¼ 384 (400-1¼)
CIRCLING		1720-1 444 (500-1)	1740-1 464 (500-1)	1780-1½ 504 (600-1½)	2500-3 1224 (1300-3)



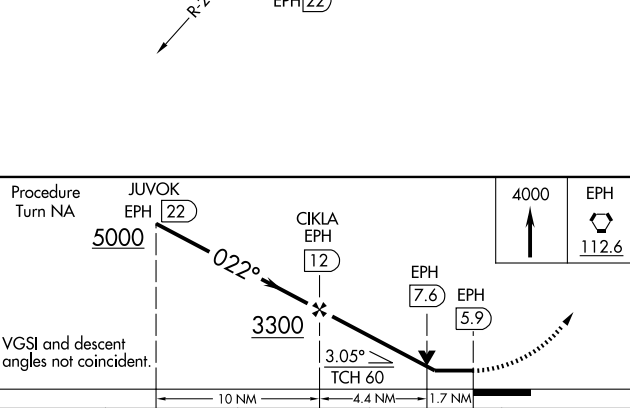
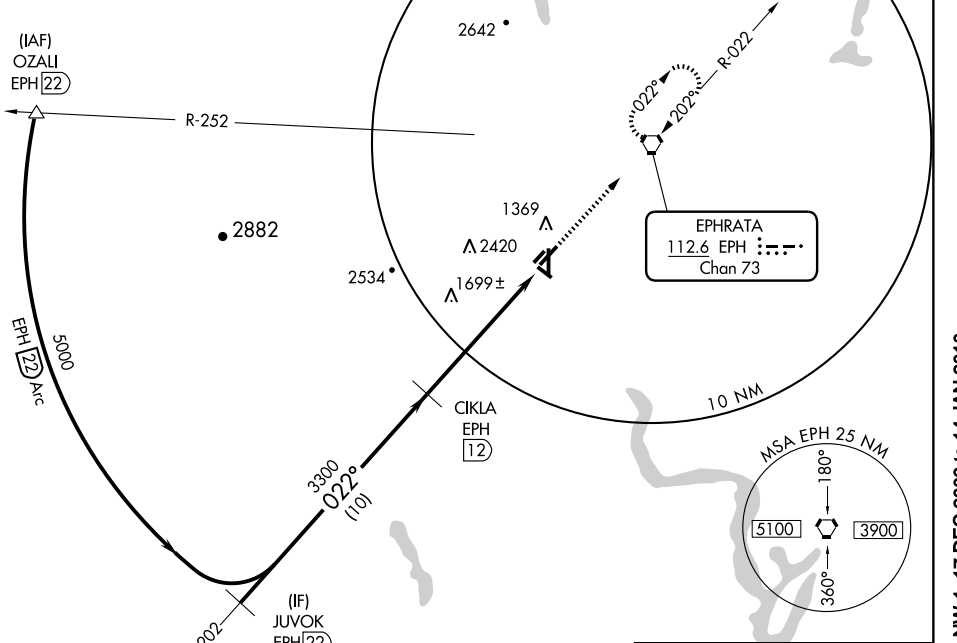
REIL Rwys 11 and 29 **L**
MIRL Rwys 11-29 and 3-21 **L**

⚠ When local altimeter setting not received, use Moses Lake/Grant County
Init altimeter setting and increase all MDA 40 feet.

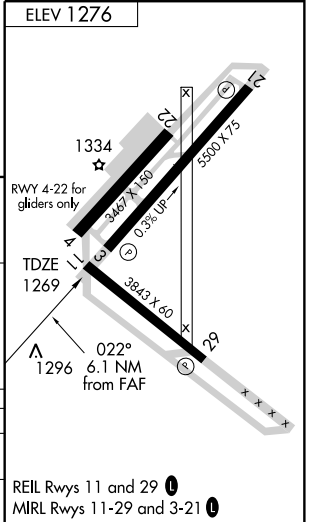
⚠ VDP NA when using Moses Lake/Grant County Init altimeter setting.

MISSED APPROACH: Climb to 4000 direct EPH
VORTAC and hold, continue climb-in-hold to 4000.

ASOS 135.775	GRANT COUNTY APP CON ★ 126.4 379.95	UNICOM 122.8 (CTAF) 0
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CATEGORY	A	B	C	D
S-3	1960-1	691 (700-1)	1960-2 691 (700-2)	1960-2 1/4 691 (700-2 1/4)
CIRCLING	1960-1	684 (700-1)	1960-2 684 (700-2)	2500-3 1224 (1300-3)



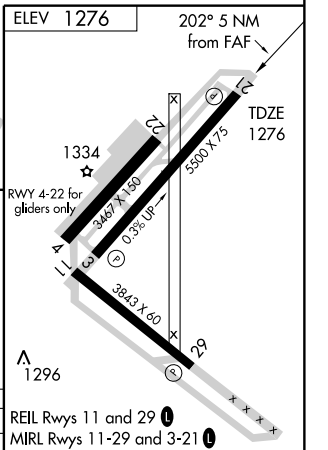
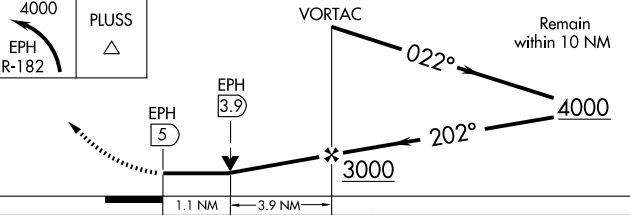
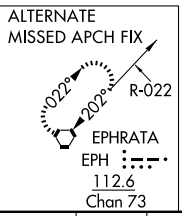
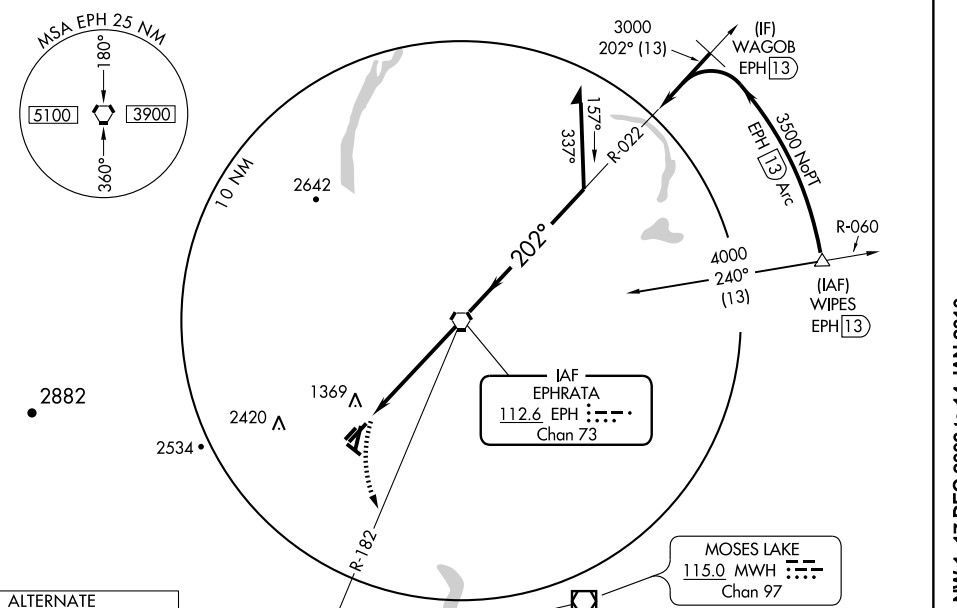
▼

▲

When local altimeter setting not received, use Moses Lake/Grant County Intl altimeter setting and increase all MDA 40 feet, increase S-21 Cat D visibility 1/4 mile. VDP NA when using Moses Lake/Grant County Intl altimeter setting. Final approach from EPH VORTAC holding pattern not authorized. Procedure turn required.

MISSED APPROACH: Climbing left turn to 4000 via EPH R-182 to PLUS Int/EPH 13.3 DME and hold. Continue climb-in-hold to 4000.

ASOS 135.775	GRANT COUNTY APP CON★ 126.4 379.95	UNICOM 122.8 (CTAF) 1
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CATEGORY	A	B	C	D	REIL Rwy 11 and 29 1	MIRL Rwy 11-29 and 3-21 1	FAF to MAP 5 NM
S-21	1680-1	404 (500-1)	1680-1 1/4	404 (500-1 1/4)			
CIRCLING	1720-1 444 (500-1)	1740-1 464 (500-1)	1780-1 1/2 504 (600-1 1/2)	2500-3 1224 (1300-3)	Knots 60 90 120 150 180	Min:Sec 5:00 3:20 2:30 2:00 1:40	

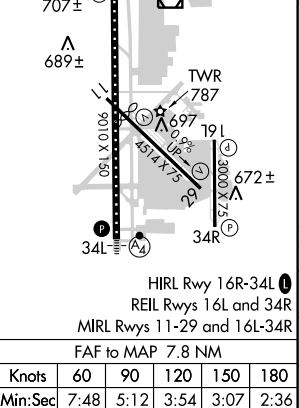
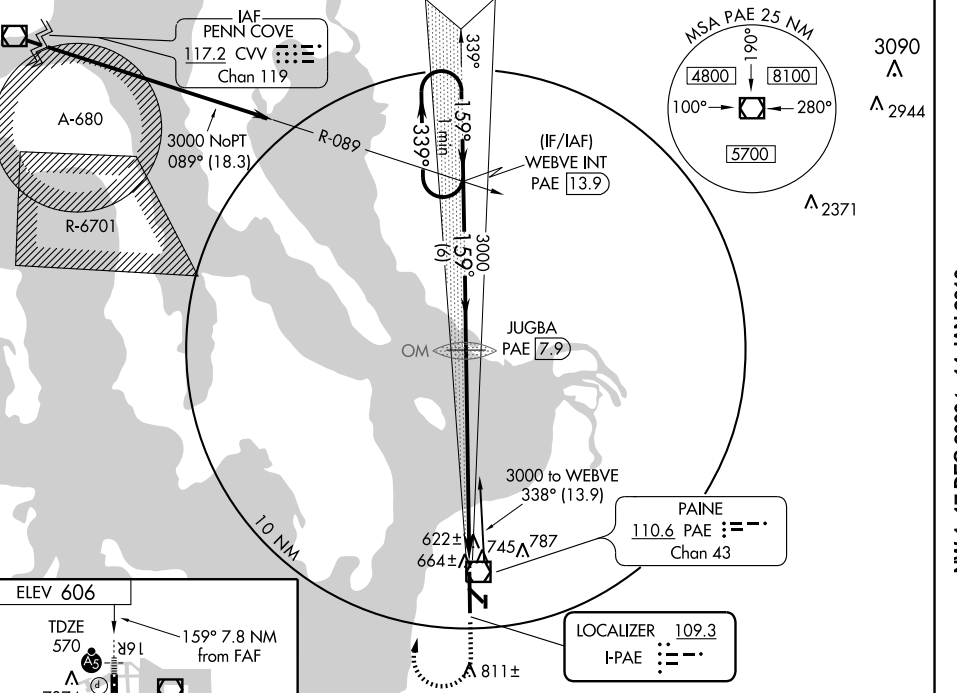
LOC I-PAE	APP CRS	Rwy Idg	9010
109.3	159°	TDZE	570
		Apt Elev	606

DME from PAE VOR/DME. Simultaneous reception of I-PAE and PAE DME required. When local altimeter setting not received, use Seattle-Tacoma Intl altimeter setting: increase DA to 858 feet; increase all MDA 100 feet, increase S-LOC 16R Cat C visibility to RVR 5000, Cat D to RVR 6000. For inoperative MALSR when using Seattle-Tacoma Intl altimeter setting, increase S-ILS 16R all Cats visibilities to RVR 5000.

MALSR

MISSED APPROACH: Climb to 1300 then climbing right turn to 3000 via heading 014° and PAE VOR/DME R-338 to WEBVE INT/PAE 13.9 DME and hold.

ATIS	SEATTLE CENTER	PAINE TOWER★		GND CON	CLNC DEL	UNICOM
128.65	128.5 306.9	(E of Rwy 16L-34R)	(W of Rwy 16R-34L)	121.8 339.8	126.75	122.95
		120.2 256.7	132.95 (CTAF) 256.7			



One Minute Holding Pattern		WEBVE INT PAE 13.9		JUGBA PAE 7.9		1300 ↑	3000 ↷ 014°	PAE R-338 110.6	WEBVE INT
 GS 2.80° TCH 57°		6 NM		7.8 NM					
CATEGORY	A		B		C		D		
S-ILS 16R	786/24 216 (200-½)								
S-LOC 16R	1020/24 450 (500-½)				1020/40 450 (500-¾)		1020/50 450 (500-1)		
CIRCLING	1100-1 494 (500-1)				1100-1½ 494 (500-1½)		1160-2 554 (600-2)		

NW-1, 17 DEC 2009 to 14 JAN 2010

ATIS 128.65

CLNC DEL

126.75

GND CON

121.8 339.8

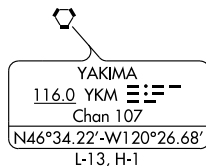
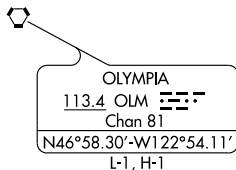
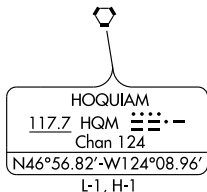
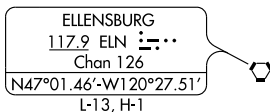
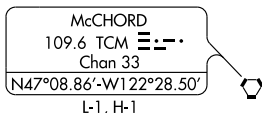
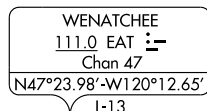
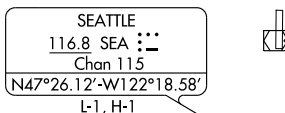
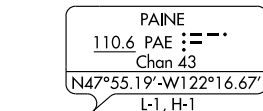
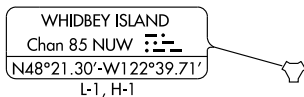
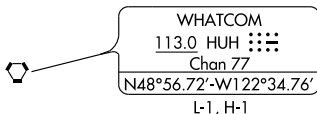
PAINE TOWER *

120.2 256.7 (E of Rwy 16L-34R)

132.95 (CTAF) 256.7 (W of Rwy 16R-34L)

SEATTLE CENTER

128.5 306.9



NOTE: Chart not to scale.

NOTE: Center may assign initial heading to be flown and vector departures in all quadrants within 10 miles of the Paine Airport provided no altitude restrictions are imposed prior to reaching MVA.

DEPARTURE ROUTE DESCRIPTION

Fly Runway heading or as assigned; expect vectors to join assigned route.

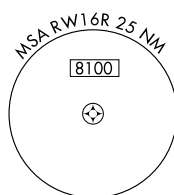
Maintain assigned altitude; expect filed altitude/flight level five minutes after departure.

LOST COMMUNICATIONS: If not in contact with SEATTLE CENTER upon reaching 2000', continue climb to assigned altitude and proceed direct to PAE VOR/DME. Thence via assigned route.

EVERETT/SNOHOMISH COUNTY (PAINE FIELD) (PAE)

MISSED APPROACH: Climb to 3000 direct DUVPE and via track 249° to FOVUS and via track 001° to ZAGIC and hold.

A 2944



* LNAV only

REIL Rwy 16L and 34R
HIRL Rwy 16R-34L
MIRL Rwy 11-29 and 16L-34R

WAAS CH 65611 W34A	APP CRS 339°	Rwy Idg TDZE Apt Elev	9010 579 606
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RNAV (GPS) RWY 34L

EVERETT/SNOHOMISH COUNTY (PAINE FIELD) (P.A.E.)



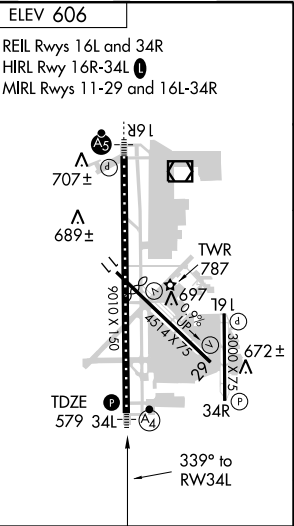
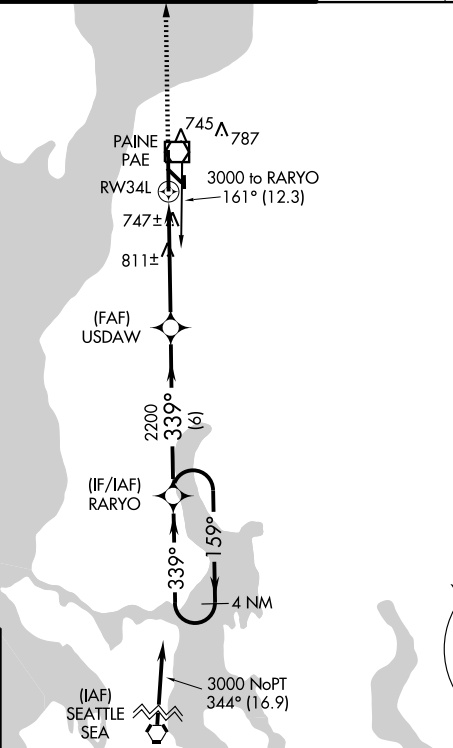
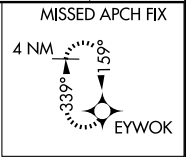
DME/DME RNP-0.3 NA.
Baro-VNAV NA below -16°C (4°F).
Inoperative table does not apply to LPV and LNAV/VNAV
all Cats and LNAV Cat C.

MAISF



MISSED APPROACH: Climb to 3000 direct
EYWOK and hold.

ATIS 128.65	SEATTLE CENTER 128.5 306.9	PAINE TOWER* (E of Rwy 16L-34R) (W of Rwy 16R-34L) 120.2 256.7 132.95 (CTAF) 256.7	GND CON 121.8 339.8	CLNC DEL 126.75	UNICOM 122.95
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3000	EYWOK	VGSI and RNAV glidepath not coincident.	RARYO	4 NM Holding Pattern
CATEGORY	A	B	C	D
LPV DA	920-1¼ 341 (400-1¼)			
LNAV/VNAV DA	1040-1½ 461 (500-1½)			
LNAV MDA	1140-¾ 561 (600-¾)		1140-1½ 561 (600-1½)	
CIRCLING	1140-1½ 534 (600-1½)		1180-2 574 (600-2)	

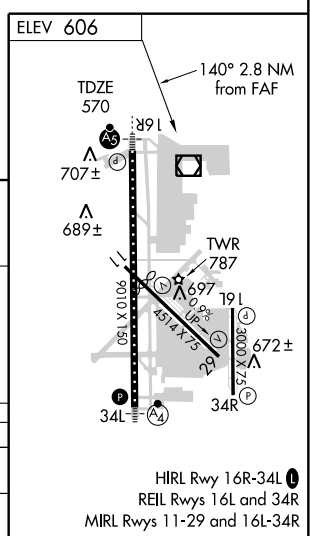
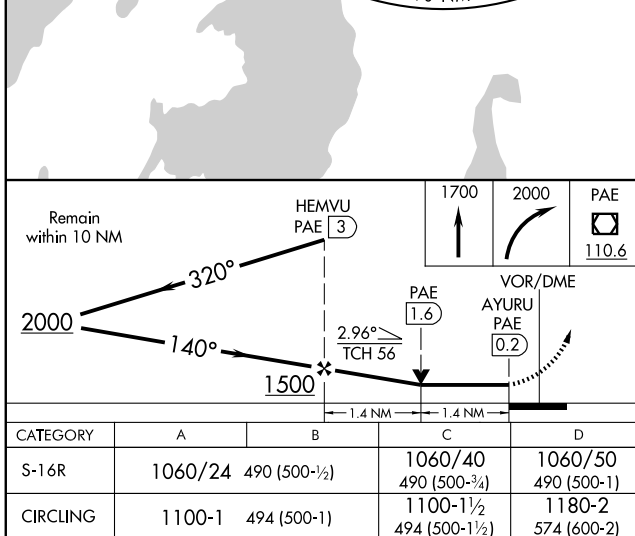
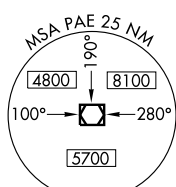
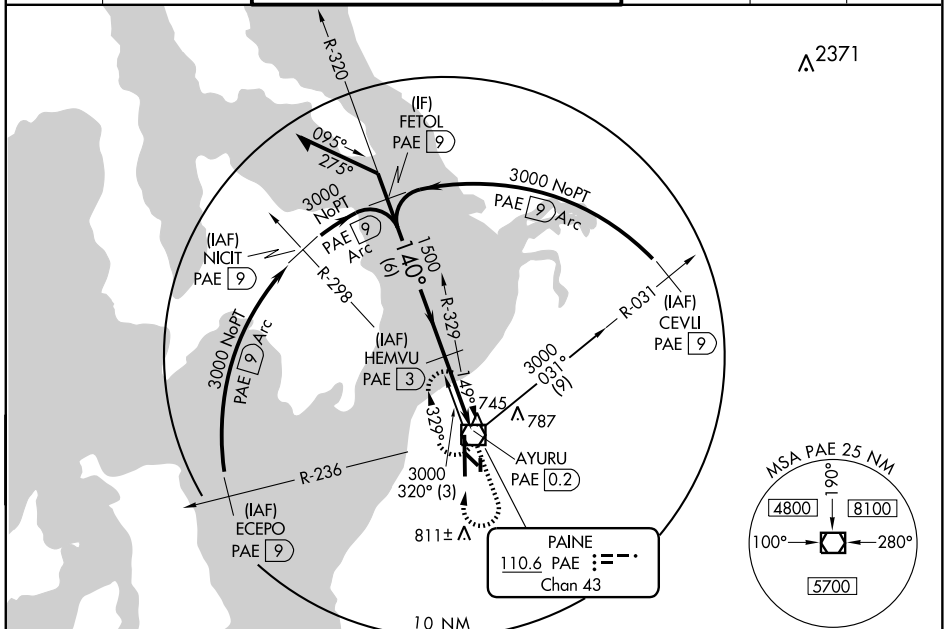
VOR/DME PAE 110.6 Chan 43	APP CRS 140°	Rwy Idg TDZE Apt Elev	9010 570 606
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VOR/DME RWY 16R

EVERETT/SNOHOMISH COUNTY (PAINE FIELD) (PAE)

▼	MALSR 	MISSED APPROACH: Climb to 1700 then climbing right turn to 2000 direct PAE VOR/DME and hold.
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ATIS 128.65	SEATTLE CENTER 128.5 306.9	PAINE TOWER★ (E of Rwy 16L-34R) (W of Rwy 16R-34L) 120.2 256.7 132.95 (CTAF) 0 256.7	GND CON 121.8 339.8	CLNC DEL 126.75	UNICOM 122.95
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CATEGORY	A	B	C	D
S-16R	1060/24 490 (500-1/2)		1060/40 490 (500-3/4)	1060/50 490 (500-1)
CIRCLING	1100-1 494 (500-1)		1100-1/2 494 (500-1/2)	1180-2 574 (600-2)

HIRL Rwy 16R-34L
REIL Rws 16L and 34R
MIRL Rws 11-29 and 16L-34R

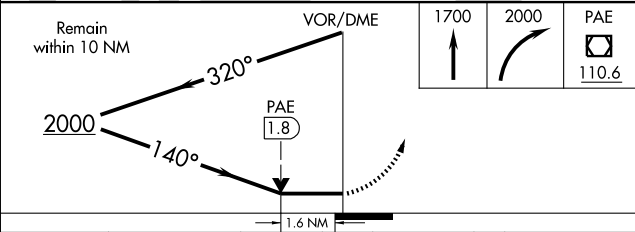
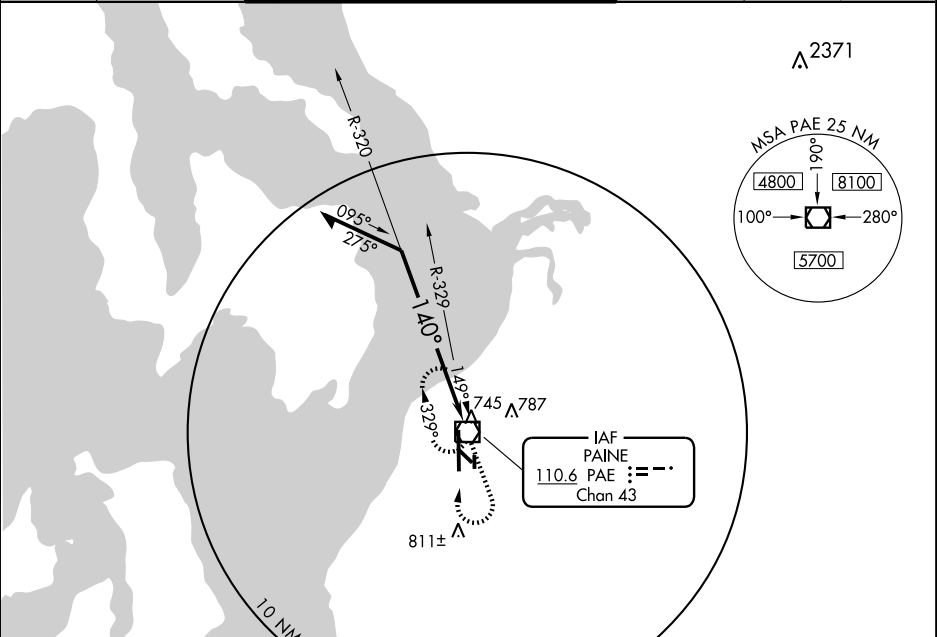
VOR/DME PAE	APP CRS	Rwy Idg	9010
110.6	140°	TDZE	570
Chan 43		Apt Elev	606

VOR RWY 16R

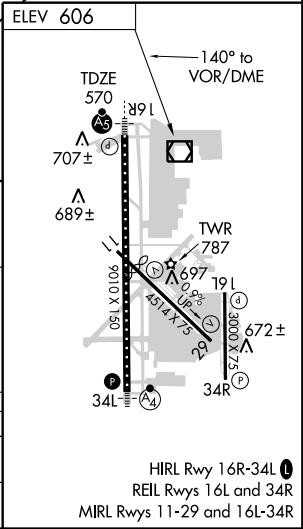
EVERETT/SNOHOMISH COUNTY (PAINE FIELD) (PAE)

	MALSR 	MISSED APPROACH: Climb to 1700 then climbing right turn to 2000 direct PAE VOR/DME and hold.
---	--	--

ATIS 128.65	SEATTLE CENTER 128.5 306.9	PAINE TOWER★ (E of Rwy 16L-34R) (W of Rwy 16R-34L) 120.2 256.7 132.95 (CTAF) 256.7	GND CON 121.8 339.8	CLNC DEL 126.75	UNICOM 122.95
----------------	-------------------------------	--	------------------------	--------------------	------------------



CATEGORY	A	B	C	D
S-16R	1100/24	530 (500-½)	1100/50 530 (500-1)	1100/60 530 (500-1¼)
CIRCLING	1100-1	494 (500-1)	1100-1½ 494 (500-1½)	1180-2 574 (600-2)



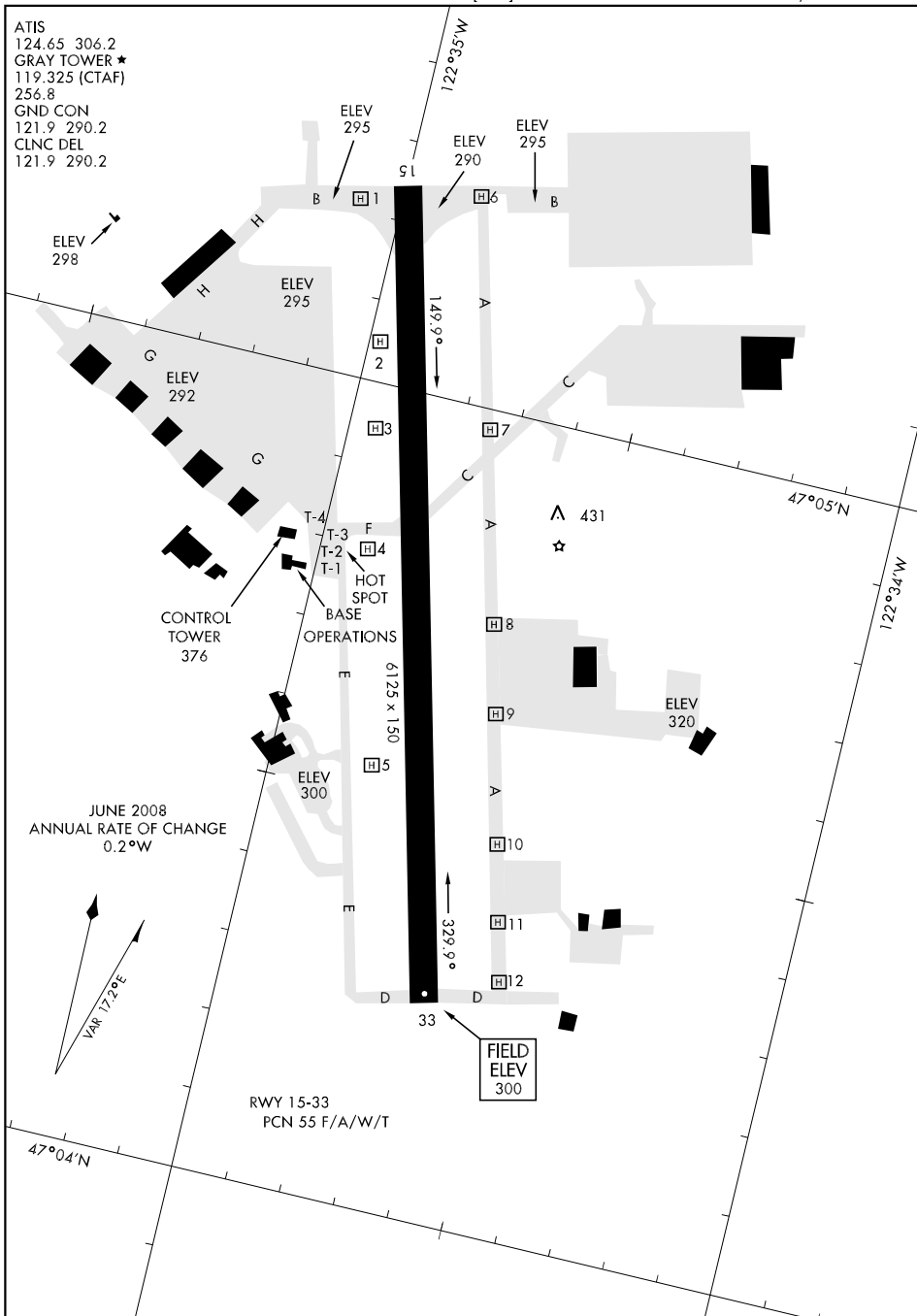
AIRPORT DIAGRAM

AFD-413 [USA]

FORT LEWIS, WASHINGTON

ATIS
124.65 306.2
GRAY TOWER ★
119.325 (CTAF)
256.8
GND CON
121.9 290.2
CLNC DEL
121.9 290.2

NW-1, 17 DEC 2009 to 14 JAN 2010



AIRPORT DIAGRAM

FORT LEWIS, WASHINGTON

LOM GR 216	APCH CRS 147°	Rwy Idg TDZE Arpt Elev 6125 299 300
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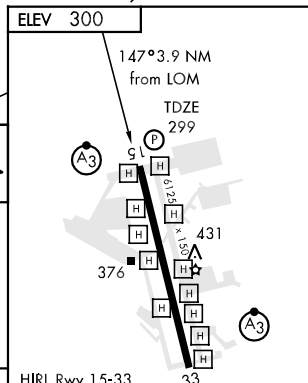
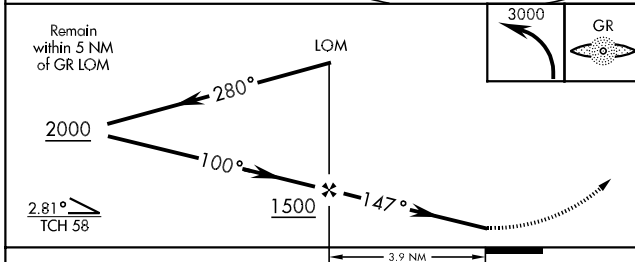
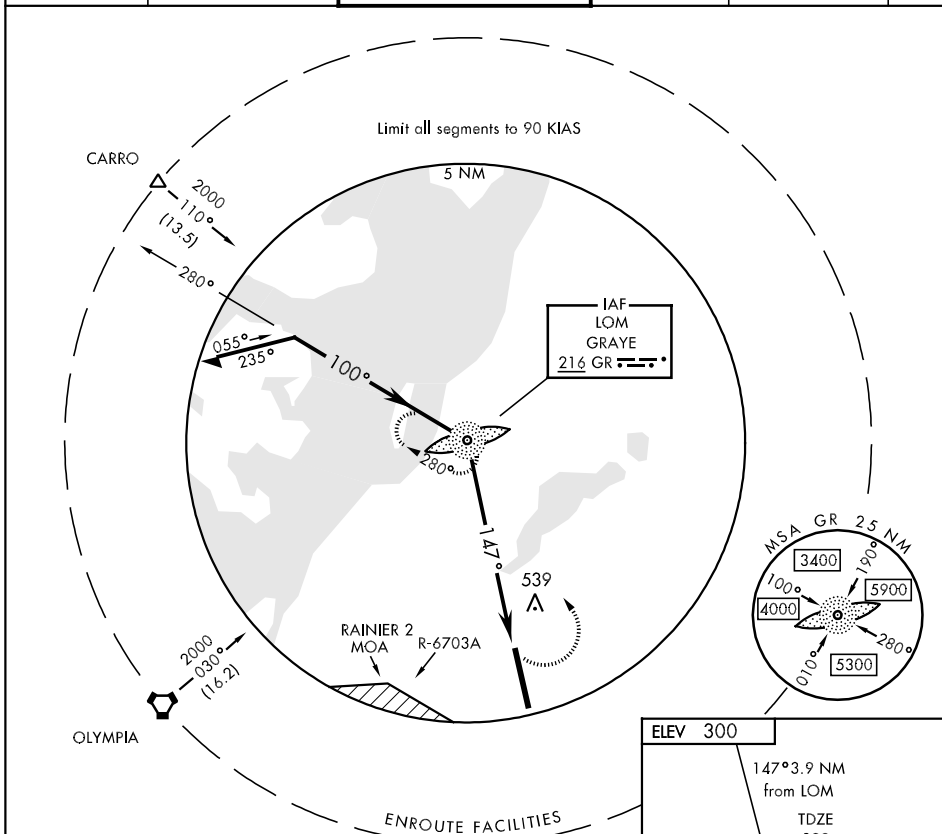
AL-413 [USA]

GRAY AAF (KGRF)



MISSED APPROACH: Climbing left turn to 3000 direct GR LOM and hold.

ATIS 124.65 306.2	SEATTLE APP CON 120.1 290.9	GRAY TOWER ★ 119.325 (CTAF) 256.8	GND CON 121.9 290.2	CLNC DEL 121.9 290.2	PAR
-----------------------------	---------------------------------------	---	-------------------------------	--------------------------------	-----



CATEGORY	COPTER				FAF to MAP 3.9 NM					
H-15	840/24	541	(600-½)		Knots	45	60	75	90	105
S-PAR 15	499/40	200	(200-¾)	GS 3.0 °	Min:Sec	5:12	3:54	3:08	2:36	2:14

LOC I-GRF
108.3
Chan **20**

APCH CRS
147°

Rwy ldg **6125**
TDZE **294**
Arpt Elev **300**

AL-413 [USA]

GRAY AAF (KGRF)

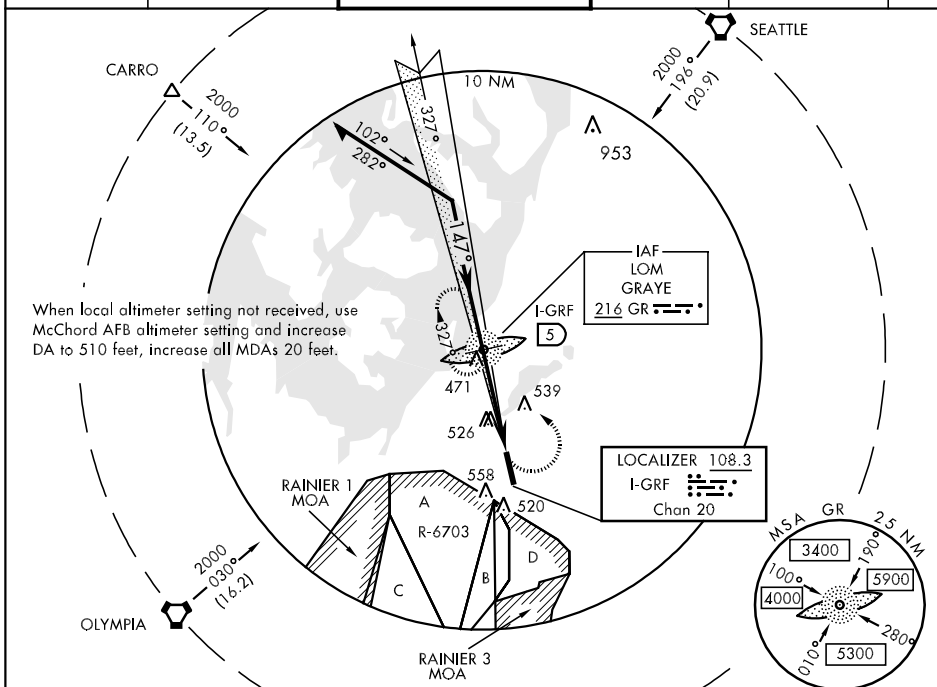
- ▼ * When ALS inop, increase CAT AB vis by ¼ mile.
** When ALS inop, increase CAT D vis by ¼ mile.
▲ *** Circling not authorized W of Rwy 15-33.

SSALR



MISSED APPROACH: Climb to 1000, then climbing left turn to 3000 direct GR LOM and hold, continue climb-in-hold to 3000.

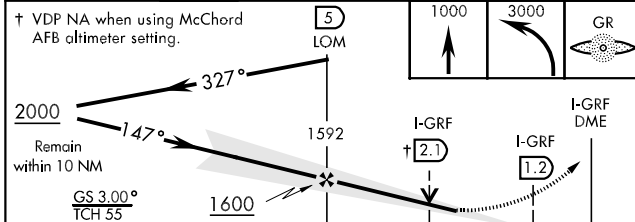
ATIS 124.65 306.2	SEATTLE APP CON 120.1 290.9	GRAY TOWER ★ 119.325 (CTAF) 256.8	GND CON 121.9 290.2	CLNC DEL 121.9 290.2	PAR
-----------------------------	---------------------------------------	---	-------------------------------	--------------------------------	-----



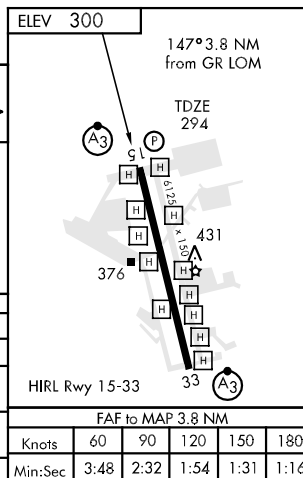
ADF REQUIRED

ENROUTE FACILITIES

† VDP NA when using McChord AFB altimeter setting.



CATEGORY	A	B	C	D
S-ILS 15 *	494/24	200 (200-½)	494/40	200 (200-¾)
S-LOC 15 **	660/40	366 (400-¾)	660/50	366 (400-1)
CIRCLING ***	780-1	480 (500-1)	780-1½	860-2
S-PAR 15	499/40	200 (200-¾)	GS 3.0°	



ATIS 124.65 306.2
CLNC DEL
121.9 290.2
GND CON
121.9 290.2
GRAY TOWER ★
119.325 (CTAF) 256.8
SEATTLE DEP CON
120.1 290.9

Rwy	Knots	60	120	180	240
15 (a)	V/V(fpm)	430	860	1290	1720
33 (b)	V/V(fpm)	380	760	1140	1520

ATC Climb Rate

(a) To 500'

(b) To 600'



SEATTLE
116.8 SEA
Chan 115

R-202

270°



MC CHORD
109.6 TCM
Chan 33

202°

600'

558

R-6703

600'

OLYMPIA
113.4 OLM
Chan 81
L-1



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 15 AND 33:

Climb via runway heading to 600', then turn left (unless otherwise directed by ATC) heading 270 for vectors to assigned route. Maintain altitude as assigned by ATC. Expect filed altitude within five minutes after departure.

LOST COMMUNICATIONS: If no transmissions are received within three minutes after departure, continue climb to assigned altitude, intercept and proceed via SEA R-202 to OLM VORTAC, thence via assigned route.

LOM GR
216APCH CRS
147°Rwy Idg
TDZE
Arpt Elev
6125
299
300

AL-413 [USA]

GRAY AAF (KGRF)

▼ If local altimeter setting not received, use McChord AFB altimeter setting and increase all MDAs 20 feet.

▲ * Circling not authorized W of Rwy 15-33.



MISSED APPROACH: Climbing left turn to 3000 direct GR LOM and hold.

ATIS
124.65 306.2

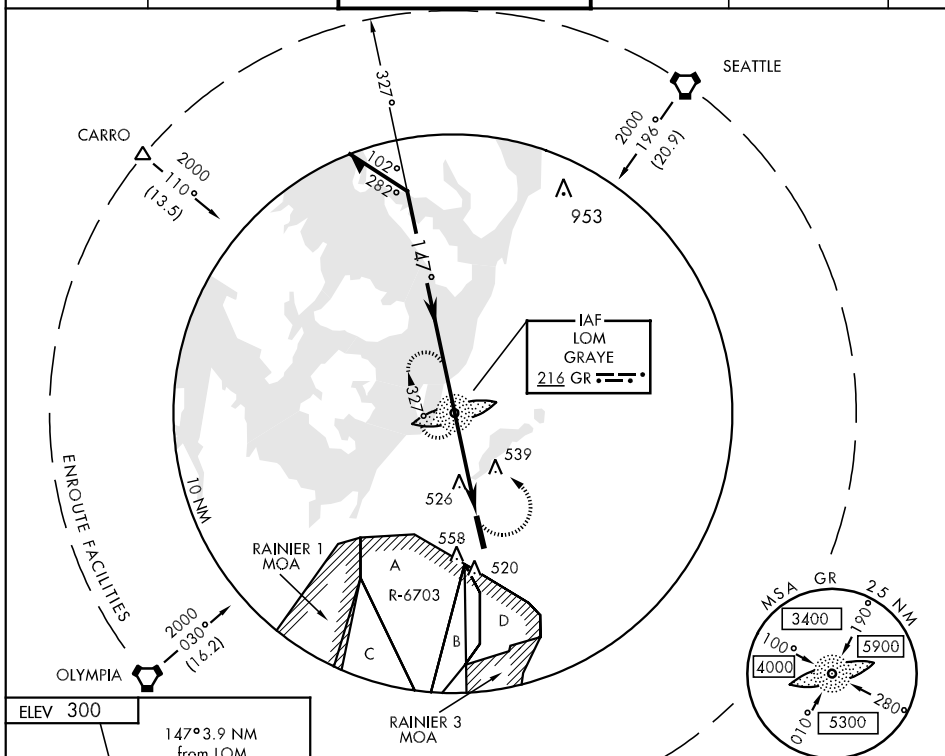
SEATTLE APP CON
120.1 290.9

GRAY TOWER ★
119.325 (CTAF) 256.8

GND CON
121.9 290.2

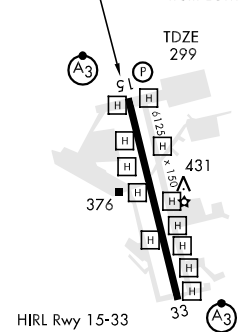
CLNC DEL
121.9 290.2

PAR



ELEV 300

147° 3.9 NM
from LOM



Remain
within 10 NM

LOM

2000

2.85°
TCH 40

1500

3000

GR

3.9 NM

CATEGORY	A	B	C	D
S-15	840/40 541 (600-¾)	840/60 541 (600-1¼)	840-1½ 541 (600-1½)	840-1½ 541 (600-1½)
CIRCLING *	840-1 540 (600-1)	840-1½ 540 (600-1½)	840-1½ 540 (600-1½)	860-2 560 (600-2)
S-PAR 15	499/40	200 (200-¾)	GS 3.0°	

FAF to MAP 3.9 NM

Knots	60	90	120	150	180
Min:Sec	3:54	2:36	1:57	1:34	1:18

NDB LAC
328

APCH CRS
327°

Rwy Idg	6125
TDZE	300
Arpt Elev	300

AL-413 [USA]

GRAY AAF (KGRF)

T If local altimeter setting not received, use McChord AFB altimeter setting and increase all MDAs 20 feet.

A * Circling not authorized W of Rwy 15-33.

SSALR



MISSED APPROACH: Climb to 1900 direct to GR LOM and hold.

ATIS
124.65 306.2

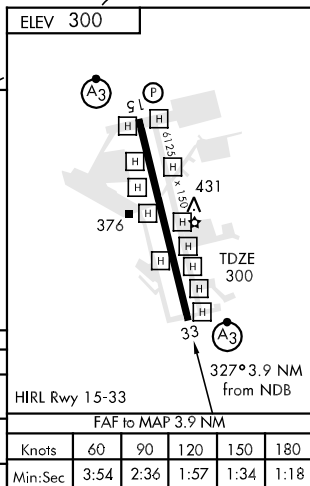
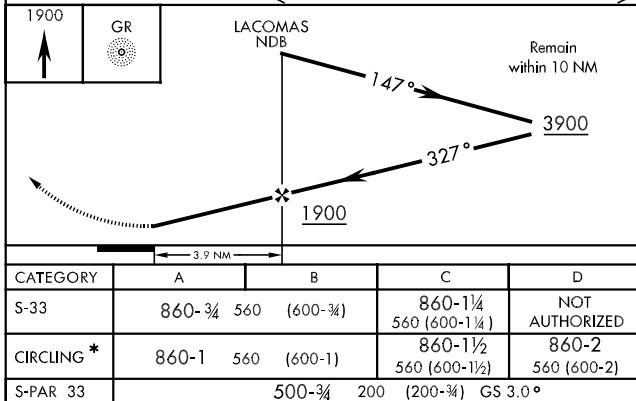
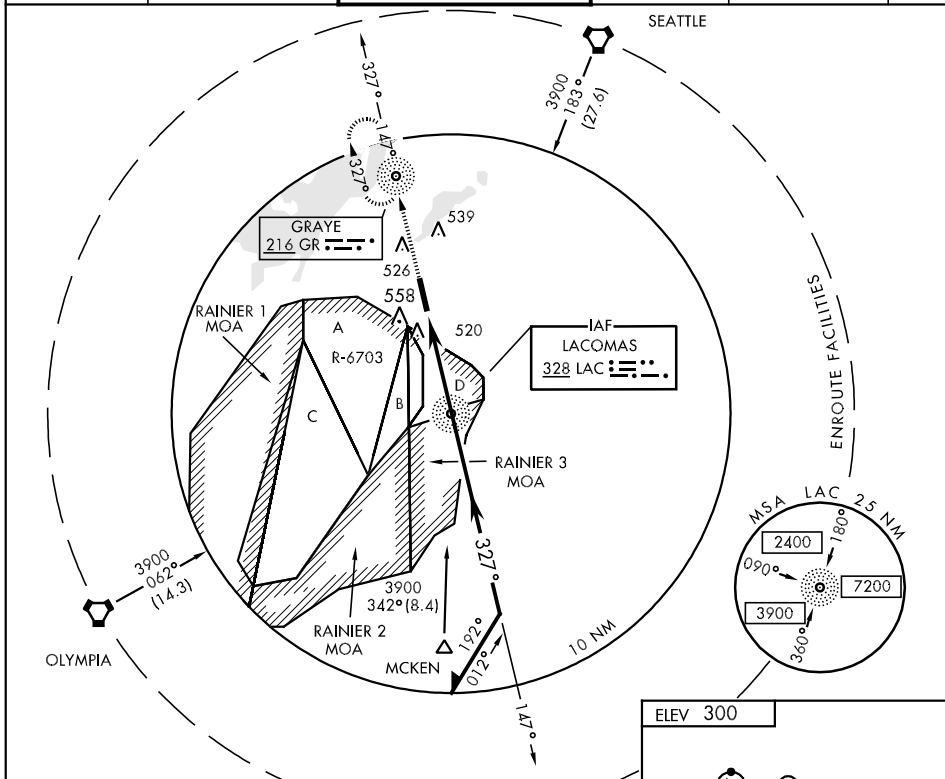
SEATTLE APP CON
120.1 290.9

GRAY TOWER ★
119.325 (CTAF) 256.8

GND CON
121.9 290.2

CLNC DEL
121.9 290.2

PAR

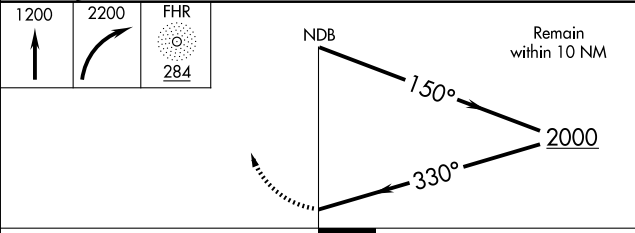
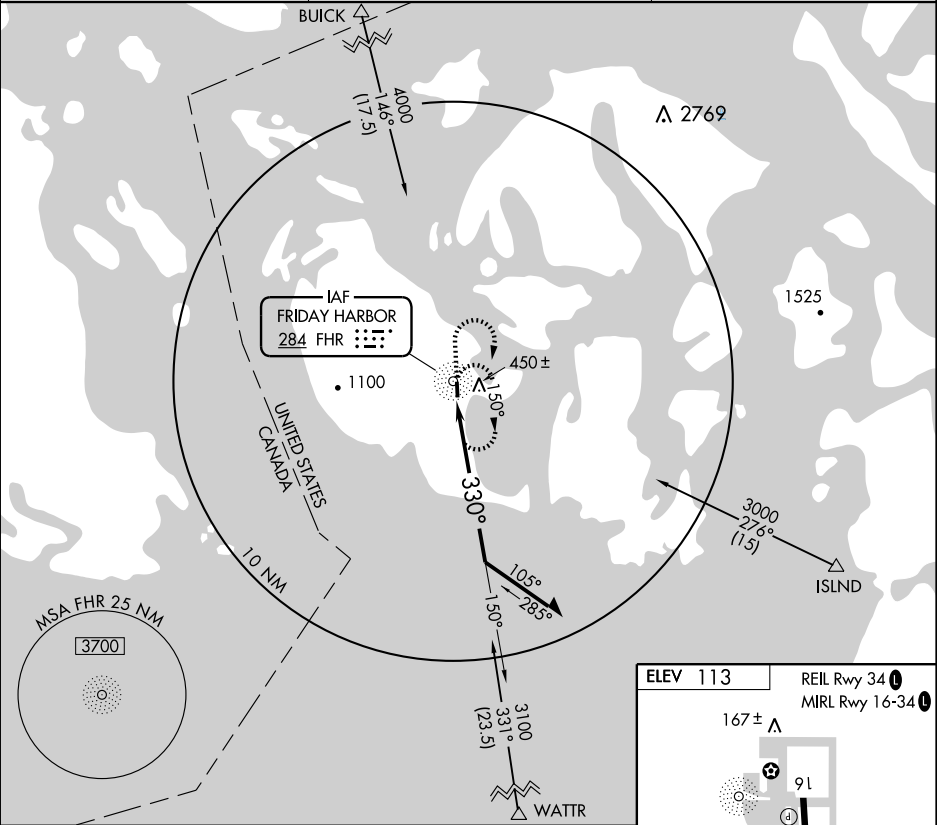


NDB RWY 34
FRIDAY HARBOR (FHR)

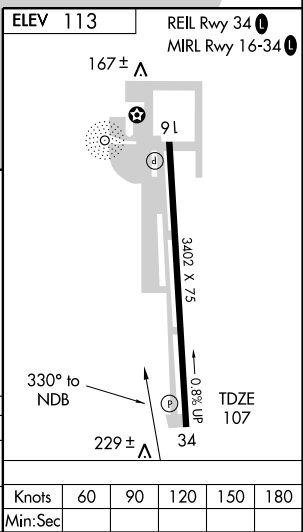
NDB FHR	APP CRS	Rwy Idg	3402
<u>284</u>	<u>330°</u>	TDZE	107
		Apt Elev	113

NA	Circling not authorized west of Rwy 16-34.	MISSED APPROACH: Climb to 1200 then climbing right turn to 2200 direct to FHR NDB and hold.
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ASOS 135.675	WHIDBEY APP CON★ 118.2 285.65	CTAF 128.25
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CATEGORY	A	B	C	D
S-34	860-1 753 (800-1)	860-1¼ 753 (800-1¼)	860-2¼ 753 (800-2¼)	NA
CIRCLING	860-1 747 (800-1)	860-1¼ 747 (800-1¼)	860-2¼ 747 (800-2¼)	NA



Knots	60	90	120	150	180
Min:Sec					

LOC/DME I-HQM	APP CRS	Rwy Idg	5000
108.7	241°	TDZE	16
Chan 24		Apt Elev	18

ILS or LOC/DME RWY 24

HOQUIAM/ BOWERMAN (HQM)

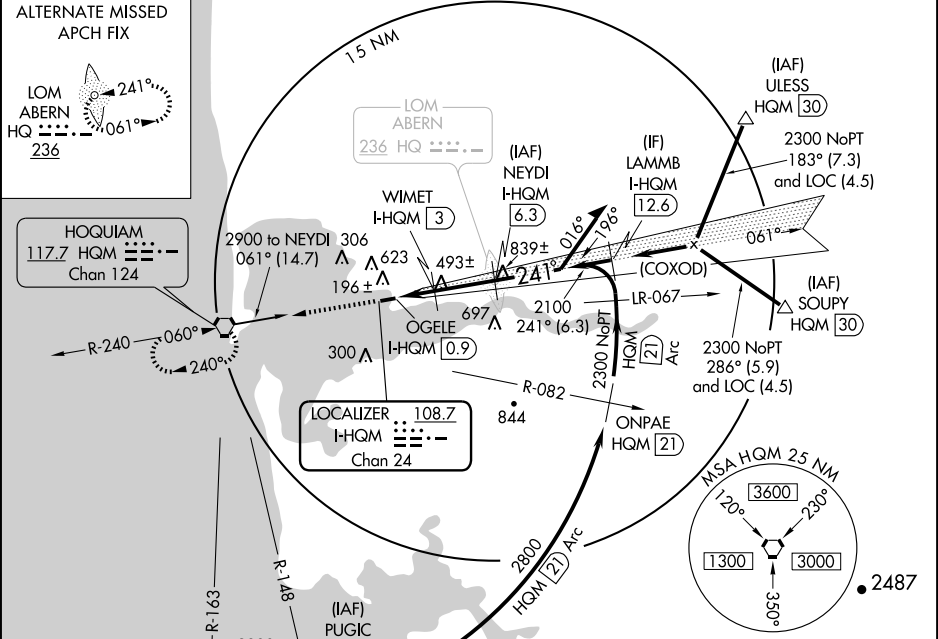
For inoperative MALS, increase S-LOC Cuts A and B visibility to 1 mile.
Circling NA northwest of Rwy 6-24.
Inoperative table does not apply to S-ILS Rwy 24.
When local altimeter setting not received, procedure NA.

MALSR



MISSED APPROACH: Climb to 2500
direct HQM VORTAC and hold.

ASOS	SEATTLE CENTER	UNICOM
135.775	128.3 269.0	122.7 (CTAF) 0



ELEV 18

DME REQUIRED

2500 HQM 117.7

VGSI and ILS glidepath not coincident. Use I-HQM DME when on LOC course.

NEYDI I-HQM 6.3

WIMET I-HQM 3

OGELE I-HQM 0.9

2100

241°

2300

2100

840*

2.1 NM

3.3 NM

GS 3.50° TCH 55

* LOC only

Remain within 10 NM

CATEGORY	A	B	C	D
S-ILS 24	216-¾ 200 (200-¾)		286-1 270 (300-1)	NA
S-LOC 24	580-¾ 564 (600-¾)		580-1 564 (600-1)	NA
CIRCLING	580-1 562 (600-1)		580-1½ 562 (600-1½)	NA

241° 5.4 NM from FAF

TDZE 16

69

50±

5000 X 150

24

AS

REIL Rwy 6 0


HIRL Rwy 6-24 0

WAAS CH 86902 W24A	APP CRS 241°	Rwy Idg TDZE Apt Elev	5000 16 18
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RNAV (GPS) RWY 24
HOQUIAM/ BOWERMAN (HQM)

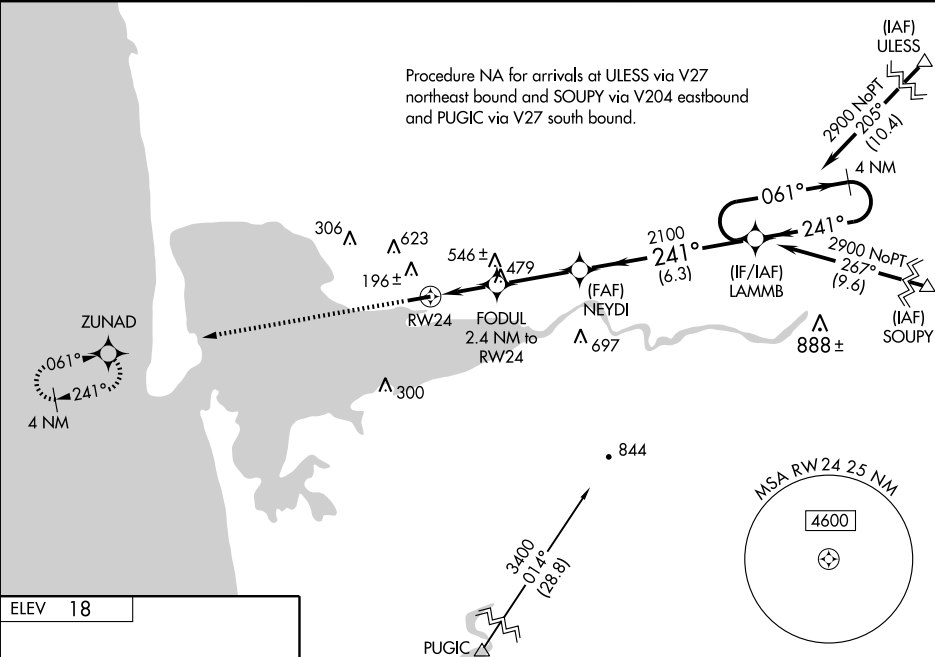
⚠ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1.5°C (5°F) or above 47°C (116°F). Inoperative table does not apply to LPV. DME/DME RNP- 0.3 NA. Visibility reduction by helicopters NA. For inoperative MALSR, increase LNAV Cat A visibility to 1 mile. Circling NA northwest of Rwy 6-24. When local altimeter setting not received, procedure NA.

MALSR

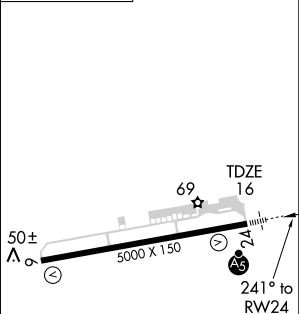


MISSED APPROACH: Climb to 2600 direct ZUNAD and hold.

ASOS 135.775	SEATTLE CENTER 128.3 269.0	UNICOM 122.7 (CTAF) 0
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ELEV 18



2600 ZUNAD

VGSI and RNAV glidepath not coincident.

LAMMB 4 NM Holding Pattern

NEYDI

FODUL 2.4 NM to RW24

RW24

960

2100

241°

061°

2900

GS 3.50° TCH 55

2.4 NM 3 NM 6.3 NM

CATEGORY	A	B	C	D
LPV DA	216-3/4	200 (200-3/4)	286-1 270 (300-1)	NA
LNAV/VNAV DA	1029-2 1/2 1013 (1100-2 1/2)			NA
LNAV MDA	800-3/4	784 (800-3/4)	800-1 3/4 784 (800-1 3/4)	NA
CIRCLING	800-1 782 (800-1)	800-1 1/4 782 (800-1 1/4)	800-2 1/4 782 (800-2 1/4)	NA

REIL Rwy 6 0
HIRL Rwy 6-24 0

⚠

⚠

Circling NA northwest of Rwy 6 and 24.
Visibility reduction by helicopters NA.

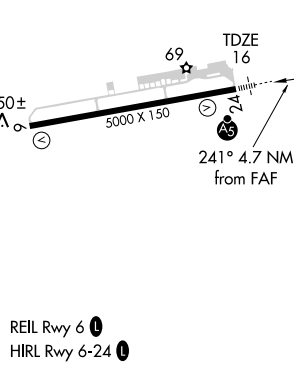
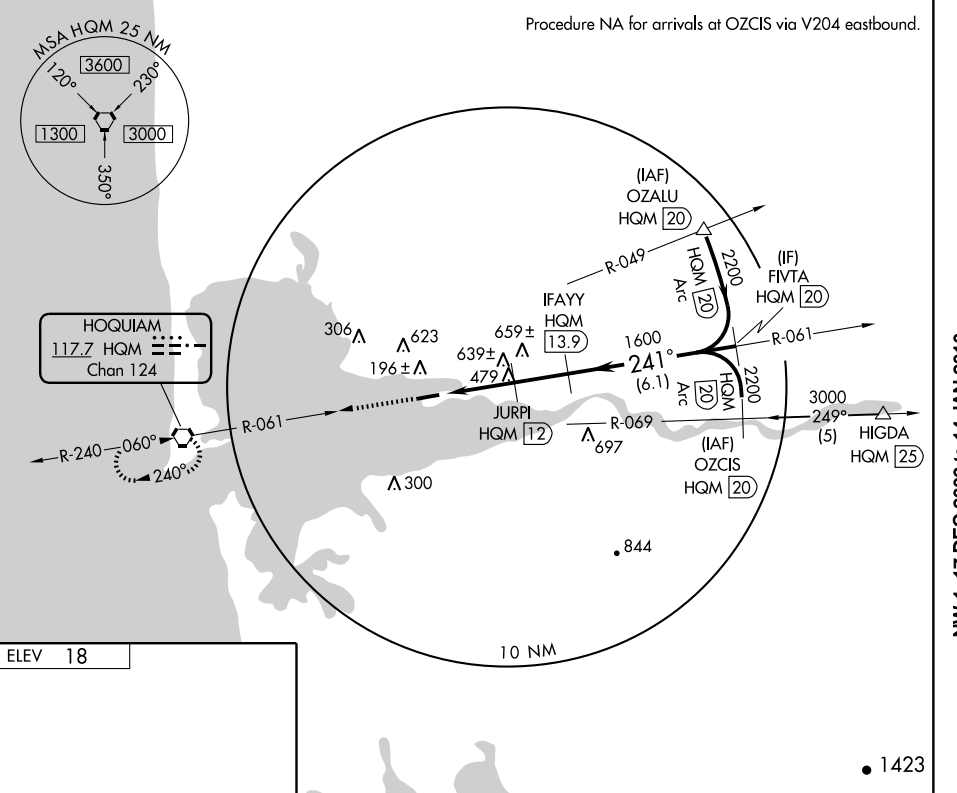
MALSR

⬤

A5

MISSED APPROACH: Climb to 2500 via HQM VORTAC
R-061 to HQM VORTAC and hold.

ASOS 135.775	SEATTLE CENTER 128.3 269.0	UNICOM 122.7 (CTAF) 1
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	2500	HQM		FIVTA
	HQM R-061	117.7		HQM 20
		JURPI	IFAYY	
		HQM 12	HQM 13.9	
			1600	2200
			3.10° TCH 52	
			241°	
			960	
			2.8 NM	1.9 NM
				6.1 NM
				Procedure Turn NA
CATEGORY	A	B	C	D
S-24	900-3/4 884 (900-3/4)		900-2 1/4 884 (900-2 1/4)	900-2 1/2 884 (900-2 1/2)
CIRCLING	900-1 1/4 882 (900-1 1/4)		900-2 3/4 882 (900-2 3/4)	900-3 882 (900-3)

VORTAC HQM

117.7

Chan 124

APP CRS

062°

Rwy Idg

5000

TDZE

18

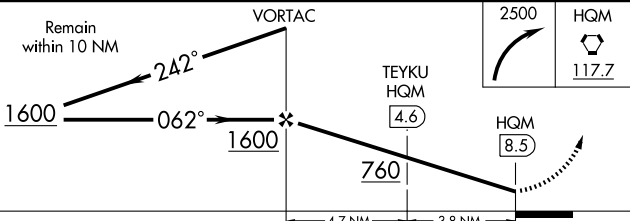
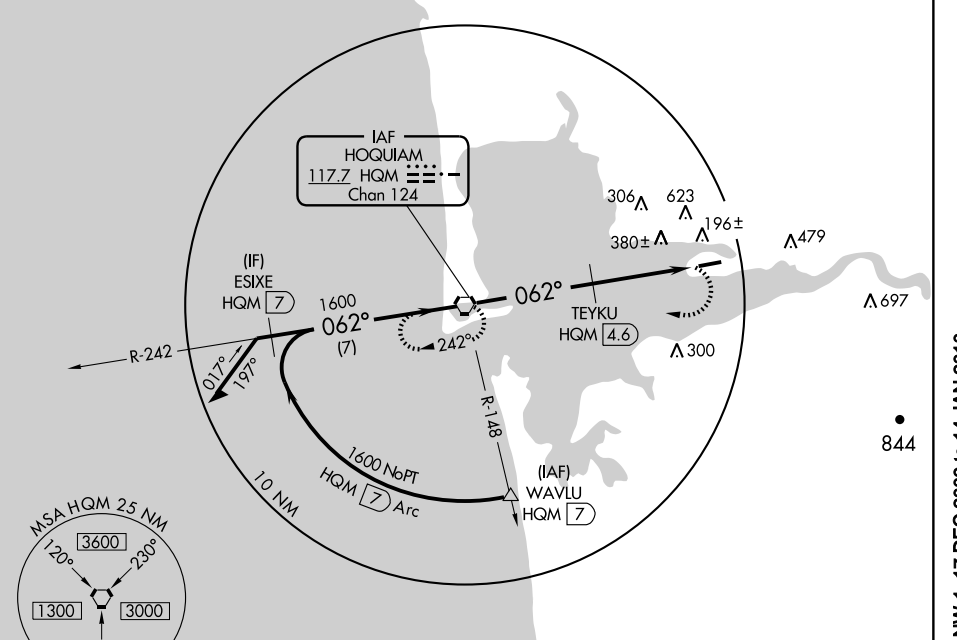
Apt Elev

18

Visibility reduction by helicopters NA.
Circling NA northwest of Rwy 6 and 24.

MISSED APPROACH: Climbing right turn to 2500 direct HQM
VORTAC and hold.

ASOS	SEATTLE CENTER	UNICOM
135.775	128.3 269.0	122.7 (CTAF) 1



CATEGORY	A	B	C	D
S-6	760-1 742 (800-1)	760-1 1/4 742 (800-1 1/4)	760-2 1/4 742 (800-2 1/4)	760-2 1/2 742 (800-2 1/2)
CIRCLING	760-1 742 (800-1)	760-1 1/4 742 (800-1 1/4)	760-2 1/4 742 (800-2 1/4)	760-2 1/2 742 (800-2 1/2)
TEYKU FIX MINIMUMS				
S-6	640-1 622 (700-1)	640-1 3/4 622 (700-1 3/4)	640-2 622 (700-2)	
CIRCLING	640-1 622 (700-1)	640-1 3/4 622 (700-1 3/4)	640-2 622 (700-2)	

ELEV 18

HQM 117.7

TDZE 18

5000 X 150

062° 8.5 NM from FAF

REIL Rwy 6 1

HIRL Rwy 6-24 1

FAF to MAP 8.5 NM

Knots	60	90	120	150	180
Min:Sec	8:30	5:40	4:15	3:24	2:50

GPS RWY 12

SOUTHWEST WASHINGTON RGNL (KLS)

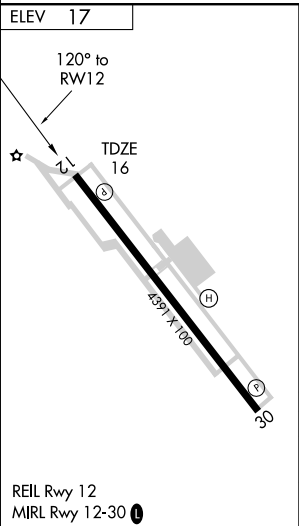
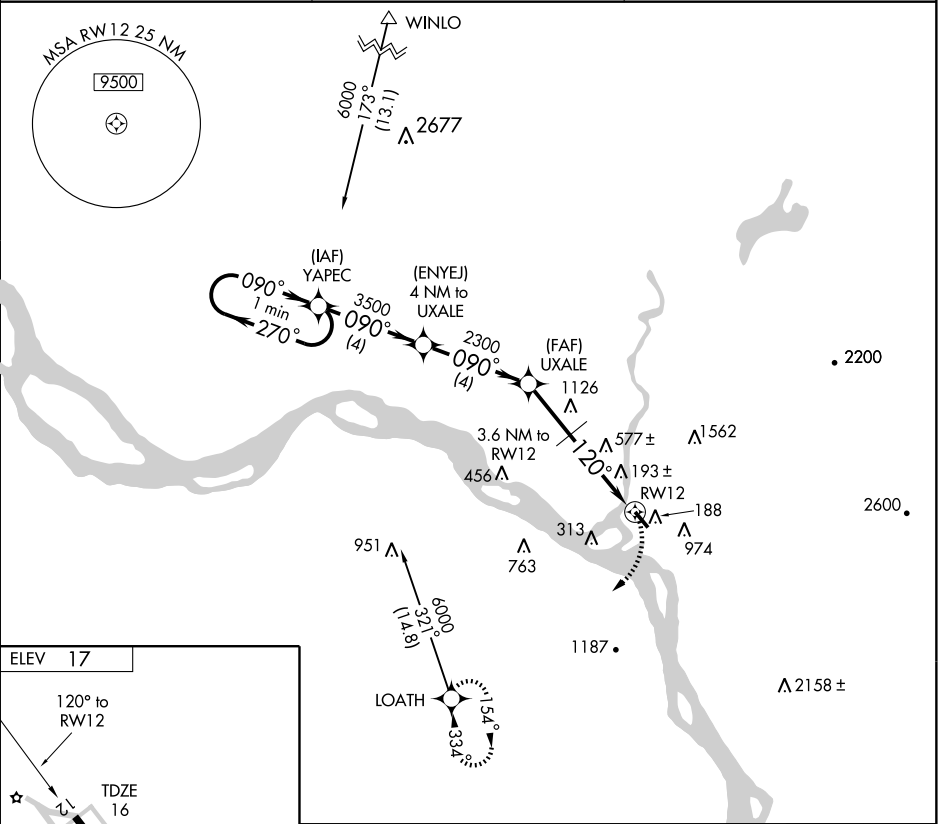
APP CRS	Rwy Idg	4391
120°	TDZE	16
	Apt Elev	17

NA

Circling not authorized northeast of Rwy 12-30.

MISSED APPROACH: Climbing right turn to 6000 direct LOATH WP and hold.

AWOS-3 135.075	SEATTLE CENTER 124.2 317.6	UNICOM 122.8 (CTAF)
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One Minute Holding Pattern							
				RWY 12			
CATEGORY	A		B		C		D
S-12	960-1¼		944 (1000-1¼)		NA		
CIRCLING	960-1¼		943 (1000-1¼)		NA		

AL-5638 (FAA)

NDB LSO <u>256</u>	APP CRS 149°	Rwy Idg TDZE Apt Elev	N/A N/A 17
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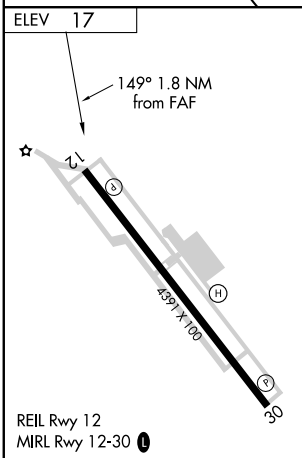
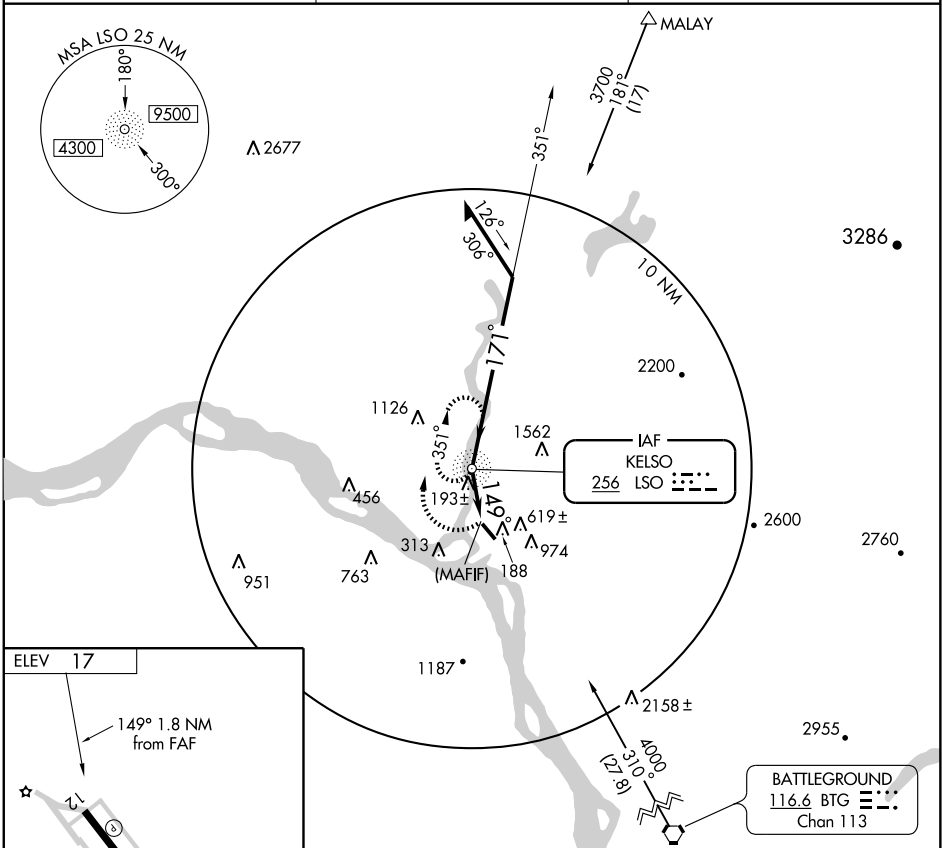
NDB or GPS-A
SOUTHWEST WASHINGTON RGNL (KLS)



Circling not authorized northeast of Rwy 12-30.

MISSED APPROACH: Climbing right turn to 3300 direct LSO NDB and hold.

AWOS-3 135.075	SEATTLE CENTER 124.2 317.6	UNICOM 122.8 (CTAF) 0
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FAF to MAP 1.8 NM						CATEGORY	A	B	C	D
Knots	60	90	120	150	180	CIRCLING	1120-1¼	1120-1½	NA	
Min:Sec	1:48	1:12	0:54	0:43	0:36		1103 (1200-1¼)	1103 (1200-1½)		

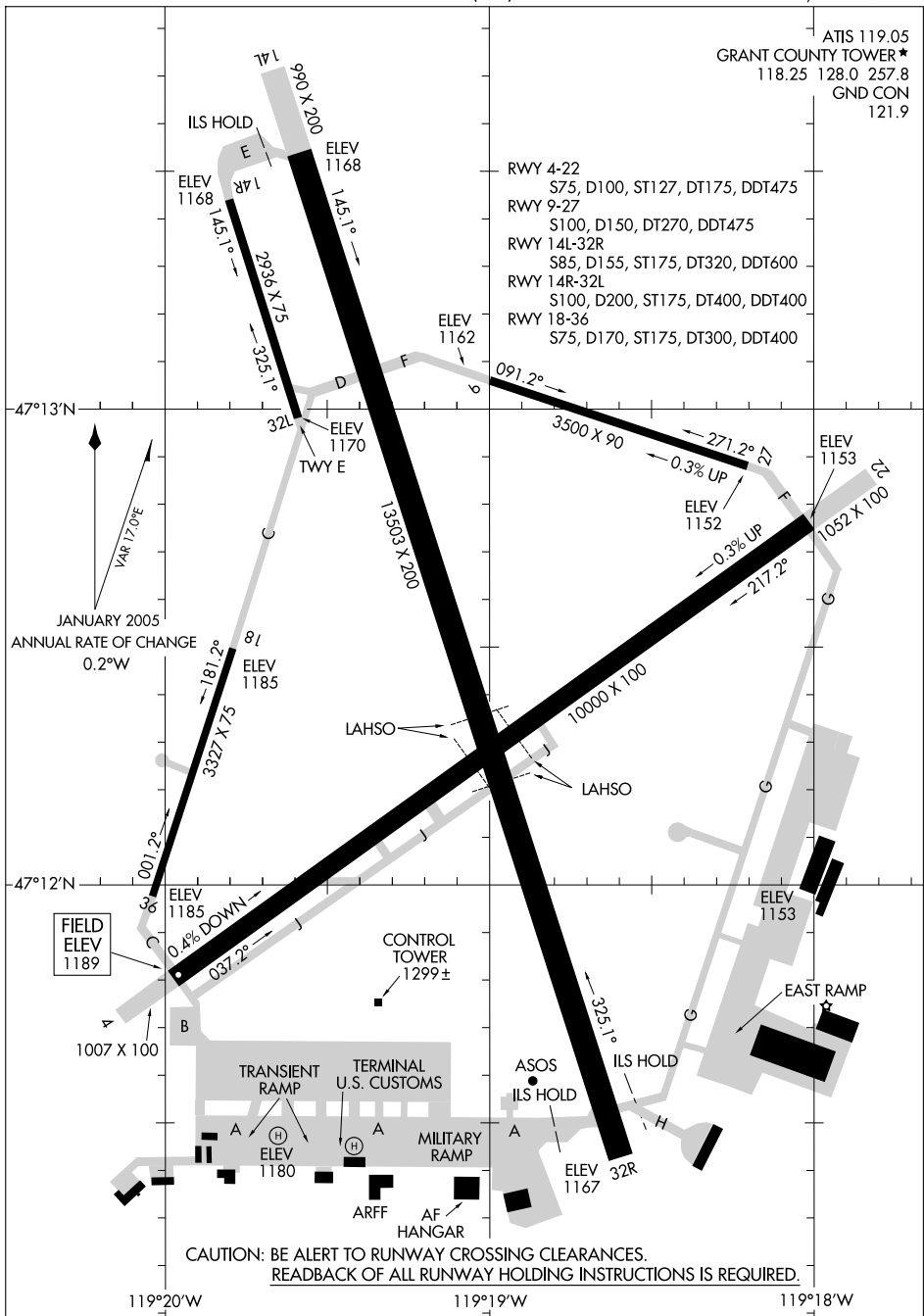
NW-1 17 DEC 2009 to 14 JAN 2010

AIRPORT DIAGRAM

AL-961 (FAA)


MOSES LAKE/GRANT COUNTY INTL (MWH)

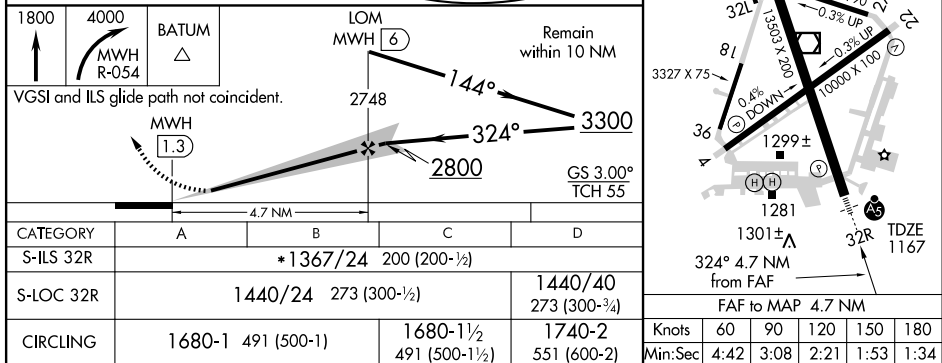
MOSES LAKE, WASHINGTON



NW-1, 17 DEC 2009 to 14 JAN 2010

ILS or LOC RWY 32R
MOSES LAKE/GRANT COUNTY INTL (MWH)

<p>MALSR</p> 	<p>MISSED APPROACH: Climb to 1800, then climbing right turn to 4000 via MWH R-054 to BATUM INT/MWH 9.8 DME and hold, continue climb-in-hold to 4000.</p>
--	--



MOSES THREE DEPARTURE

SL-961 (FAA)

MOSES LAKE/GRANT COUNTY INTL (MWH)

MOSES LAKE, WASHINGTON

ATIS 119.05

GND CON

121.9

GRANT COUNTY TOWER ★

118.25 (CTAF) 128.0 257.8

GRANT COUNTY DEP CON ★

126.4 379.95

WENATCHEE
111.0 EAT :--
Chan 47
N47°23.98' - W120°12.65'

L-13



EPHRATA
112.6 EPH :--
Chan 73
N47°22.68' - W119°25.44'

L-13, H-1



SPOKANE
115.5 GEG :--
Chan 102
N47°33.90' - W117°37.61'

L-13, H-1

ELLENSBURG
117.9 ELN :--
Chan 126
N47°01.46' - W120°27.51'

L-13, H-1

MOSES LAKE
115.0 MWH :--
Chan 97
N47°12.65' - W119°19.01'

L-13, H-1

YAKIMA
116.0 YKM :--
Chan 107
N46°34.22' - W120°26.68'

L-13, H-1

PASCO
108.4 PSC :--
Chan 21
N46°15.78' - W119°06.94'

L-13

WALLA WALLA
116.4 ALW :--
Chan 111
N46°05.22' - W118°17.55'

L-13

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

ALL RUNWAYS: Fly runway heading, or ATC assigned heading, for vector to assigned route/fix. Maintain 5000' or ATC assigned altitude. Expect clearance to filed altitude 5 minutes after departure.

LOST COMMUNICATIONS: If no transmissions received for 1 minute after departure, maintain runway heading, or ATC assigned heading to 6000', then climbing right turn to filed altitude, direct MWH VOR/DME, then via assigned fix/route.

LOM MW 408	APP CRS 324°	Rwy Idg 13503 TDZE 1164 Apt Elev 1185
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NDB RWY 32R

MOSES LAKE/GRANT COUNTY INTL (MWH)

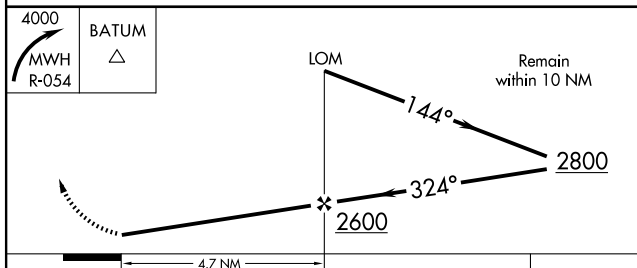
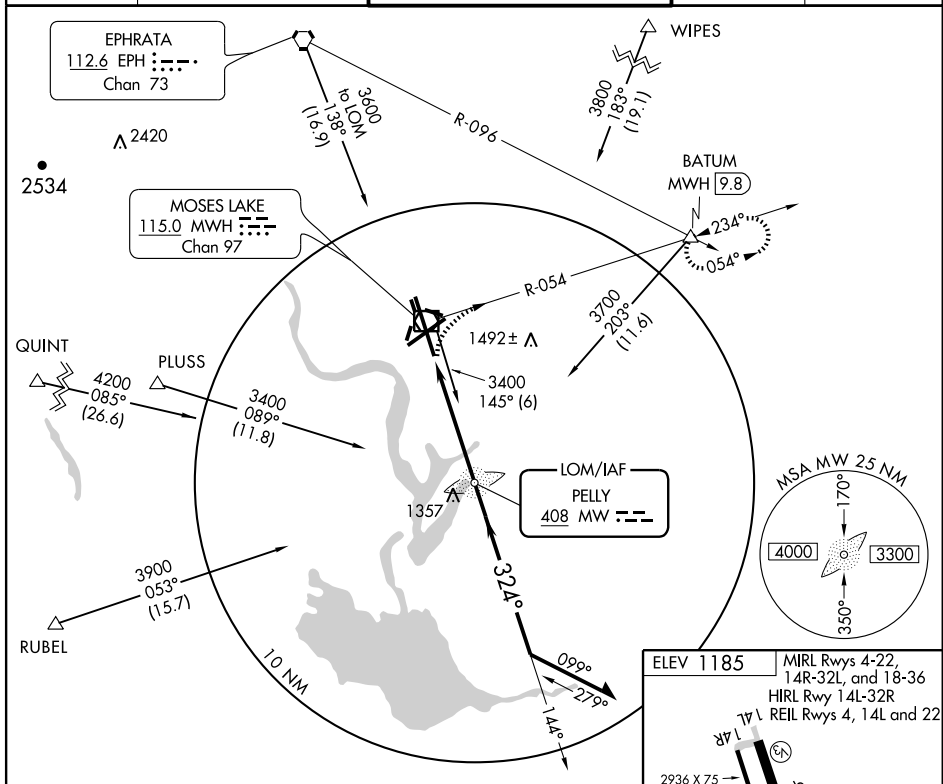


MALSR

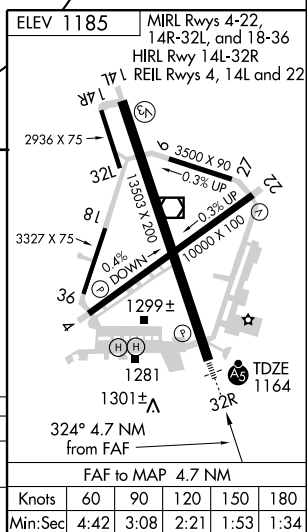


MISSED APPROACH: Climbing right turn to 4000 via MWH R-054 to BATUM Int/MWH 9.8 DME and hold.

ATIS 119.05	GRANT COUNTY APP CON * 126.4 379.95	GRANT COUNTY TOWER * 118.25 (CTAF) 128.0 257.8	GND CON 121.9	UNICOM 122.95
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CATEGORY	A	B	C	D
S-32R	1680/40	516 (500-¾)	1680/50 516 (500-1)	1680-1½ 516 (500-1½)
CIRCLING	1680-1	495 (500-1)	1680-1½ 495 (500-1½)	1740-2 555 (600-2)



WAAS CH 42809 W04A	APP CRS 036°	Rwy Idg 10000 TDZE 1189 Apt Elev 1189
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RNAV (GPS) RWY 4

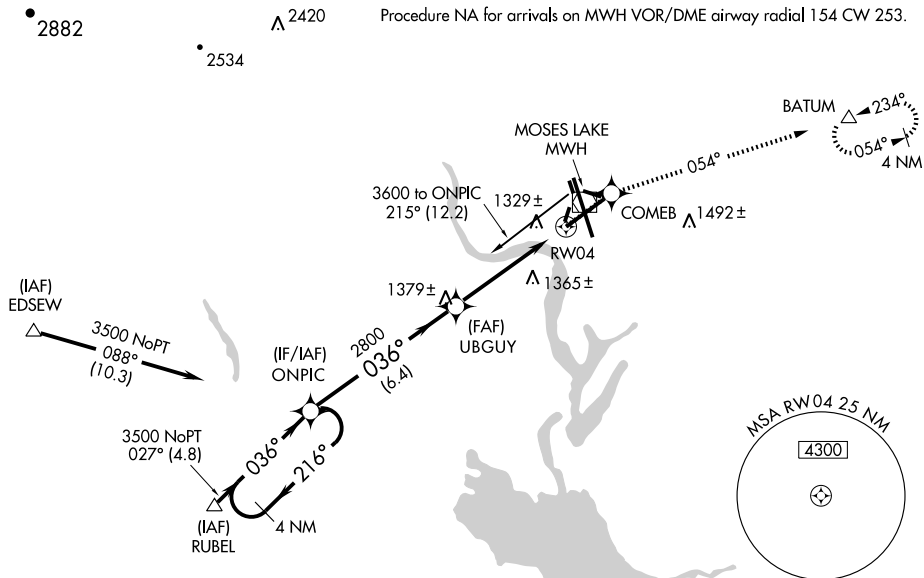
MOSES LAKE/ GRANT COUNTY INTL (MWH)

⚠ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Ephrata altimeter setting and increase all DA/MDA 40 feet and increase LPV all Cats and LNAV/VNAV all Cats visibility ¼ mile. Baro-VNAV and VDP NA when using Ephrata altimeter setting.

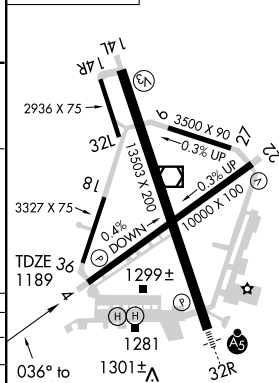
MISSED APPROACH: Climb to 4000 direct COMEB and via 054° track to BATUM and hold, continue climb-in-hold 4000.

ATIS	GRANT COUNTY APP CON ★	GRANT COUNTY TOWER ★	GND CON	UNICOM
119.05	126.4 379.95	118.25 (CTAF) 128.0 257.8	121.9	122.95

Procedure NA for arrivals on MWH VOR/DME airway radial 154 CW 253.



ELEV 1189



4NM Holding Pattern

ONPIC

*LNAV only

4000

COMEB

054° track

BATUM

3500

216°

036°

036°

UBGUY

2800

*1.2 NM RW04

RW04

6.4 NM

3.6 NM

1.2 NM

GS 3.00°

TCH 50

CATEGORY	A	B	C	D
LPV DA	1439- $\frac{3}{4}$	250 (300- $\frac{3}{4}$)		
LNAV/VNAV DA	1636-1 $\frac{1}{2}$	447 (500-1 $\frac{1}{2}$)		
LNAV MDA	1620-1	431 (500-1)	1620-1 $\frac{1}{4}$ 431 (500-1 $\frac{1}{4}$)	1620-1 $\frac{1}{2}$ 431 (500-1 $\frac{1}{2}$)
CIRCLING	1660-1	471 (500-1)	1660-1 $\frac{1}{2}$ 471 (500-1 $\frac{1}{2}$)	1740-2 551 (600-2)

HIRL Rwy 14L-32R
REIL Rwy 4, 14L and 22
MIRL Rwy 4-22, 14R-32L and 18-36

WAAS CH 90509 W14A	APP CRS 144°	Rwy Idg TDZE Apt Elev 1189	13503 1169 1189
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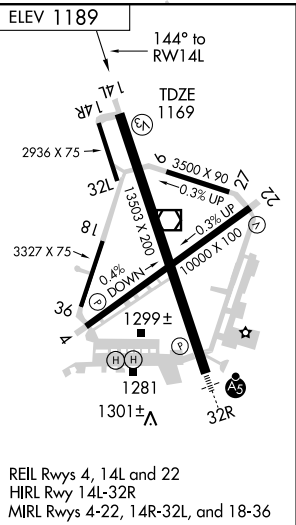
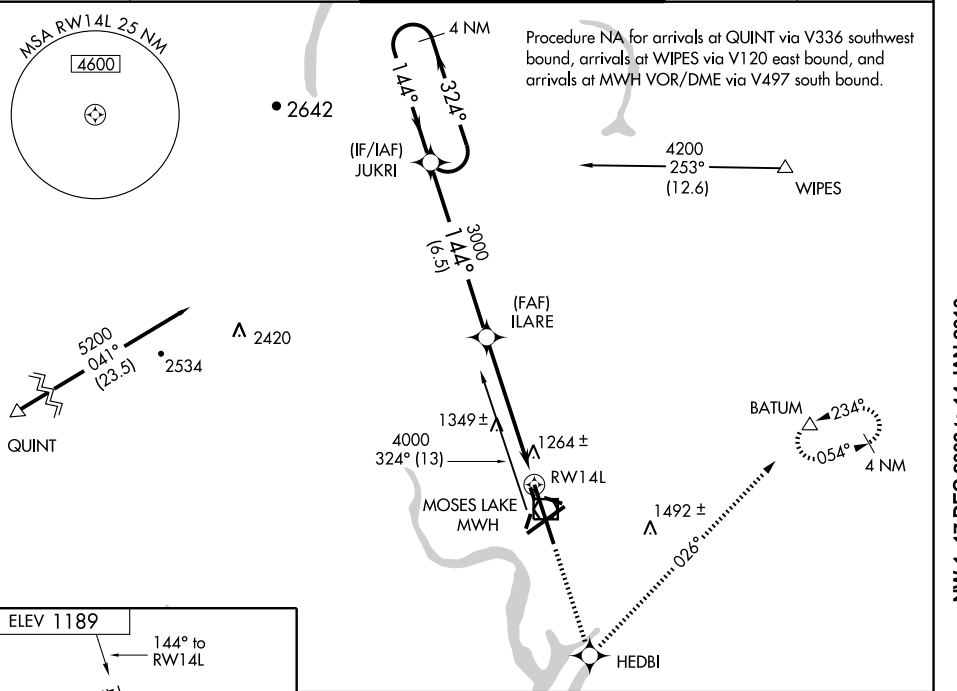
▼

▲

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP-0.3 NA. Baro-VNAV and VDP NA when using Ephrata altimeter setting. When local altimeter setting not received, use Ephrata altimeter setting and increase all DA/MDA 40 feet and increase LPV all CATs and LNAV/VNAV all CATs visibility ½ mile.

MISSED APPROACH: Climb to 4000 direct HEDBI and via 026° track to BATUM and hold, continue climb-in-hold 4000.

ATIS 119.05	GRANT COUNTY APP CON * 126.4 379.95	GRANT COUNTY TOWER * 118.25 (CTAF) 128.0 257.8	GND CON 121.9	UNICOM 122.95
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4NM Holding Pattern		JUKRI	* LNAV only		4000	HEDBI	BATUM
4000		324°	144°	144°	3000	026° track	
GS 3.00° TCH 52		6.5 NM	4.3 NM	1.2 NM			
CATEGORY	A	B	C	D			
LPV DA		1419-¾	250 (300-¾)				
LNAV/VNAV DA		1622-1½	453 (500-1½)				
LNAV MDA	1600-1	431 (500-1)	1600-1¼ 431 (500-1¼)	1600-1½ 431 (500-1½)			
CIRCLING	1660-1	471 (500-1)	1660-1½ 471 (500-1½)	1740-2 551 (600-2)			

NW-1, 17 DEC 2009 to 14 JAN 2010

WAAS CH 70410 W22A	APP CRS 216°	Rwy Idg TDZE Apt Elev	10000 1166 1189
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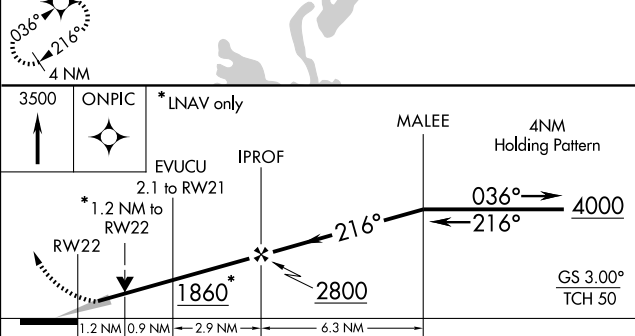
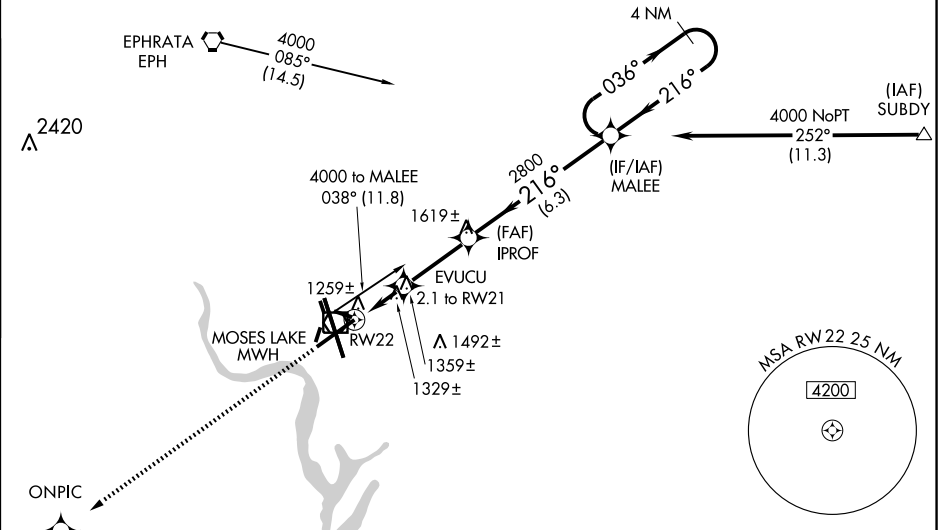
RNAV (GPS) RWY 22
MOSES LAKE/ GRANT COUNTY INTL (MWH)

▼ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP-0.3 NA. Baro-VNAV and VDP NA when using Ephrata altimeter setting. When local altimeter setting not received, use Ephrata altimeter setting and increase all DA/MDA 40 feet and increase LNAV/VNAV all Cats and LNAV Cat D visibility 1/4 mile.

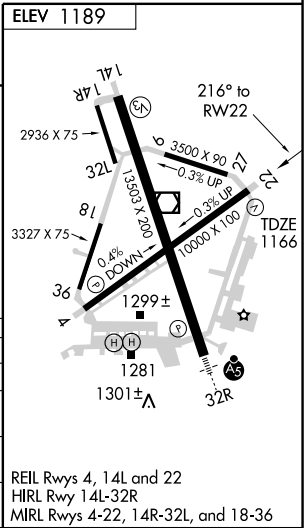
▲ MISSED APPROACH: Climb to 3500 direct ONPIC and hold.

ATIS 119.05	GRANT COUNTY APP CON * 126.4 379.95	GRANT COUNTY TOWER * 118.25 (CTAF) 128.0 257.8	GND CON 121.9	UNICOM 122.95
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Procedure NA for arrivals at EPH VORTAC via V120 westbound.



CATEGORY	A	B	C	D
LPV DA	1416-1	250 (300-1)		
LNAV/VNAV DA	1529-1 1/4	363 (400-1 1/4)		
LNAV MDA	1580-1 414 (500-1)	1580-1 1/4 414 (500-1 1/4)		
CIRCLING	1660-1 471 (500-1)	1660-1 1/2 471 (500-1 1/2)	1740-2 551 (600-2)	



WAAS CH 77799 W32A	APP CRS 324°	Rwy Idg 13503 TDZE 1164 Apt Elev 1185
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RNAV (GPS) RWY 32R

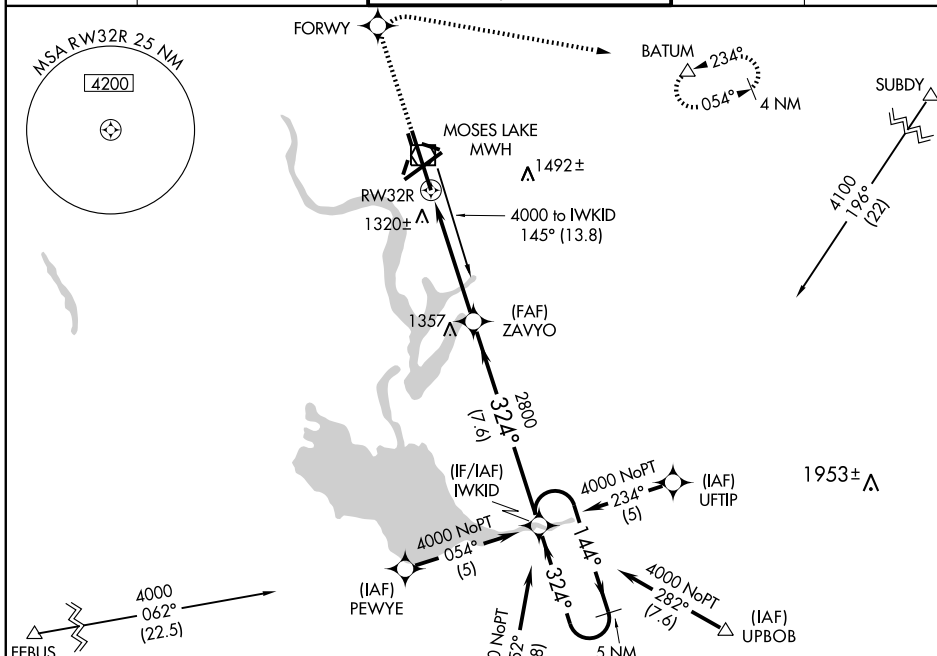
MOSES LAKE/GRANT COUNTY INTL (MWH)



T DME/DME RNP-0.3 NA. Baro-VNAV NA below -17°C (1°F). For inoperative MALSR increase LPV all Cats visibility to RVR 4000, and LNAV Cat D visibility to 1½.

MALSR
A5

MISSED APPROACH: Climb to 4000 direct FORWY and right turn via 080° track to BATUM and hold, continue climb-in-hold to 4000.

ATIS 119.05	GRANT COUNTY APP CON ★ 126.4 379.95	GRANT COUNTY TOWER ★ 118.25 (CTAF) 0 128.0 257.8	GND CON 121.9	UNICOM 122.95
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4000 ↑	FORWY 	 080°	BATUM △	IWKID 	5 NM Holding Pattern
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VGSI and RNAV glidepath
not coincident

*1.2 NM to

ZAVYC

IWKID

Holding Pattern

▶ **PMV/2**

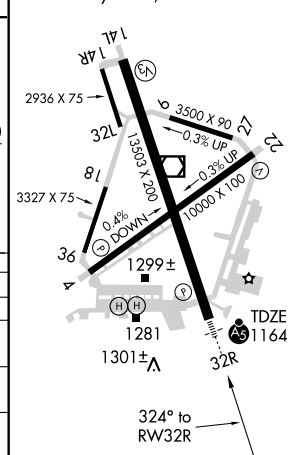
* LNAV only

2800

GS 3.00°
TCH 54

		1.2 NM		3.7 NM		7.6 NM			
CATEGORY		A		B		C		D	
LPV	DA	1414/24				250 (300-1/2)			
LNAV/ VNAV	DA	1667/60				503 (500-1 1/4)			
LNAV	MDA	1620/24 456 (500-1/2)				1620/40 456 (500-3/4)		1620/50 456 (500-1)	
CIRCLING		1680-1 1/4 495 (500-1 1/4)						1740-2 555 (600-2)	

ELEV 1185	HIRL Rwy 14L-32R
	REIL Rwy 4, 14L and 22
	MIRL Rwy 4-22, 14R-32L and 18-36



VORTAC EPH
112.6
Chan **73**

APP CRS
135°

Rwy Idg	13503
TDZE	1166
Apt Elev	1185

VOR-1 RWY 14L
MOSES LAKE/GRANT COUNTY INTL (MWH)



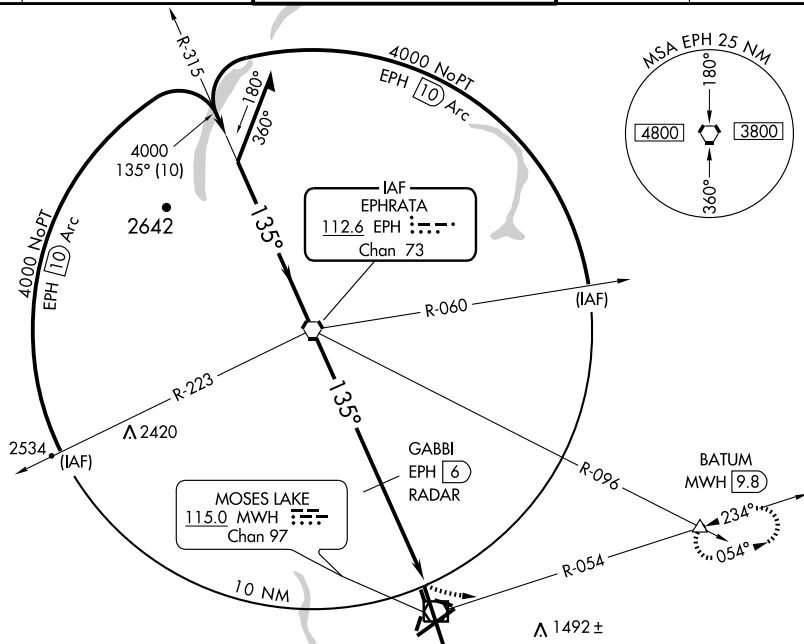
MISSED APPROACH: Climbing left turn to 4000 via MWH R-054 to BATUM Int/MWH 9.8 DME and hold.

ATIS
119.05

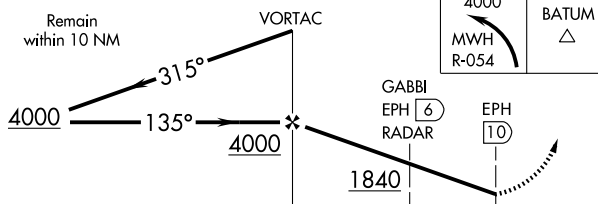
GRANT COUNTY APP CON ★
126.4 379.95

GRANT COUNTY TOWER ★
118.25 (CTAF) L 128.0 257.8

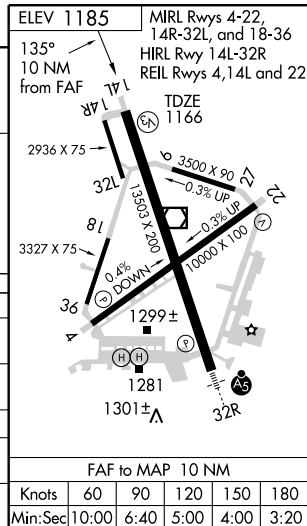
GND CON
121,9

UNICOM
122.95

NW-1. 17 DEC 2009 to 14 JAN 2010



CATEGORY	A	B	C	D
S-14L	1840-1 674 (700-1)		1840-2 674 (700-2)	1840-2 ¼ 674 (700-2¼)
CIRCLING	1840-1 655 (700-1)		1840-1¾ 655 (700-1¾)	1840-2 655 (700-2)
GABBI DME or RADAR MINIMUMS				
S-14L	1640-1 474 (500-1)		1640-1¼ 474 (500-1¼)	1640-1½ 474 (500-1½)
CIRCLING	1680-1 495 (500-1)		1680-1½ 495 (500-1½)	1740-2 555 (600-2)

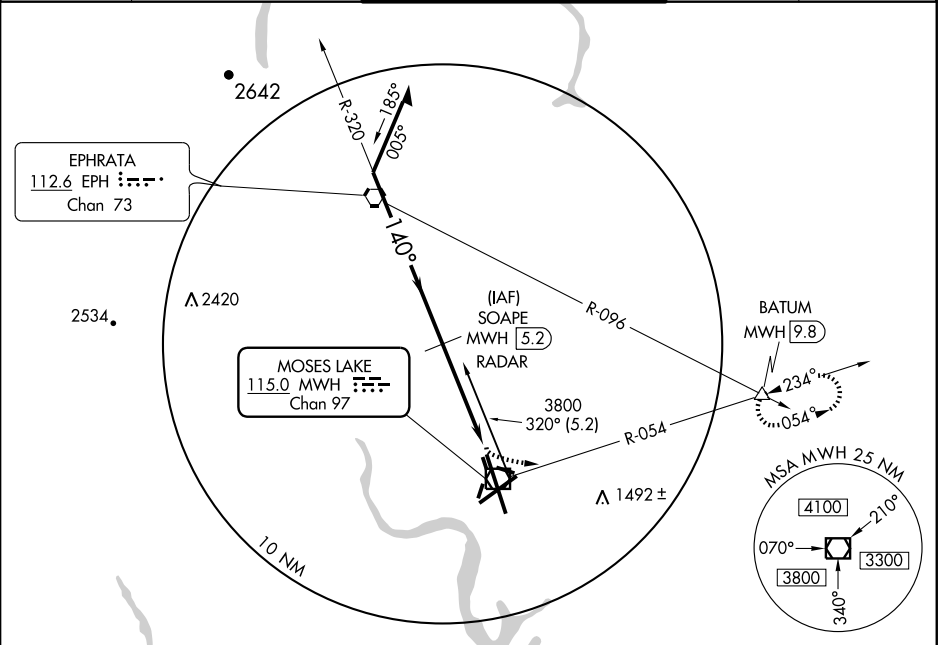


VOR/DME MWH	APP CRS	Rwy Idg	13503
115.0	140°	TDZE	1166
Chan 97		Apt Elev	1185

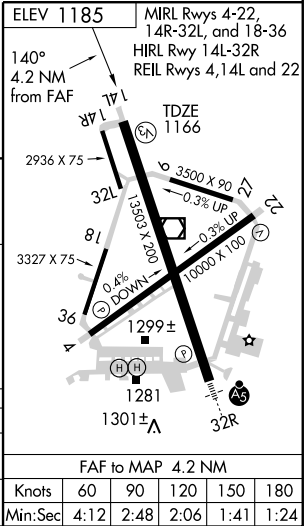
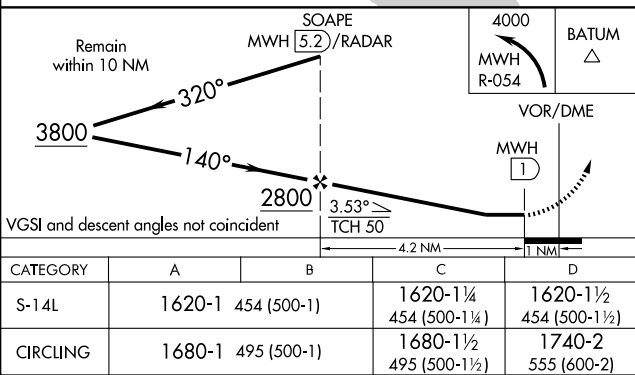
VOR-3 RWY 14L
MOSES LAKE/ GRANT COUNTY INTL (MWH)

<div><div></div><div></div></div>	MISSED APPROACH: Climbing left turn to 4000 via MWH R-054 to BATUM Int/MWH 9.8 DME and hold.
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ATIS 119.05	GRANT COUNTY APP CON ★ 126.4 379.95	GRANT COUNTY TOWER ★ 118.25 (CTAF) 128.0 257.8	GND CON 121.9	UNICOM 122.95
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RADAR or DME REQUIRED



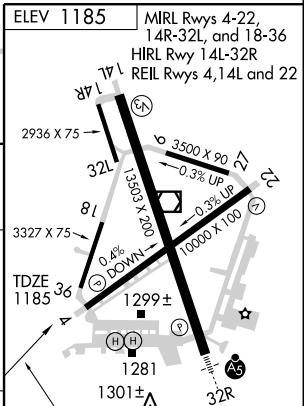
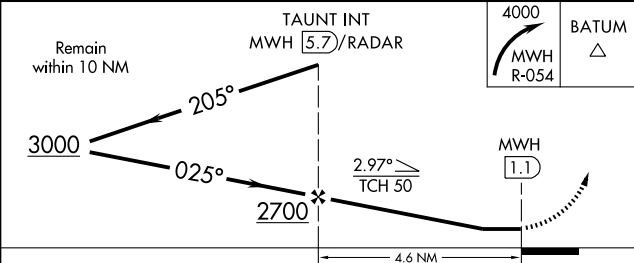
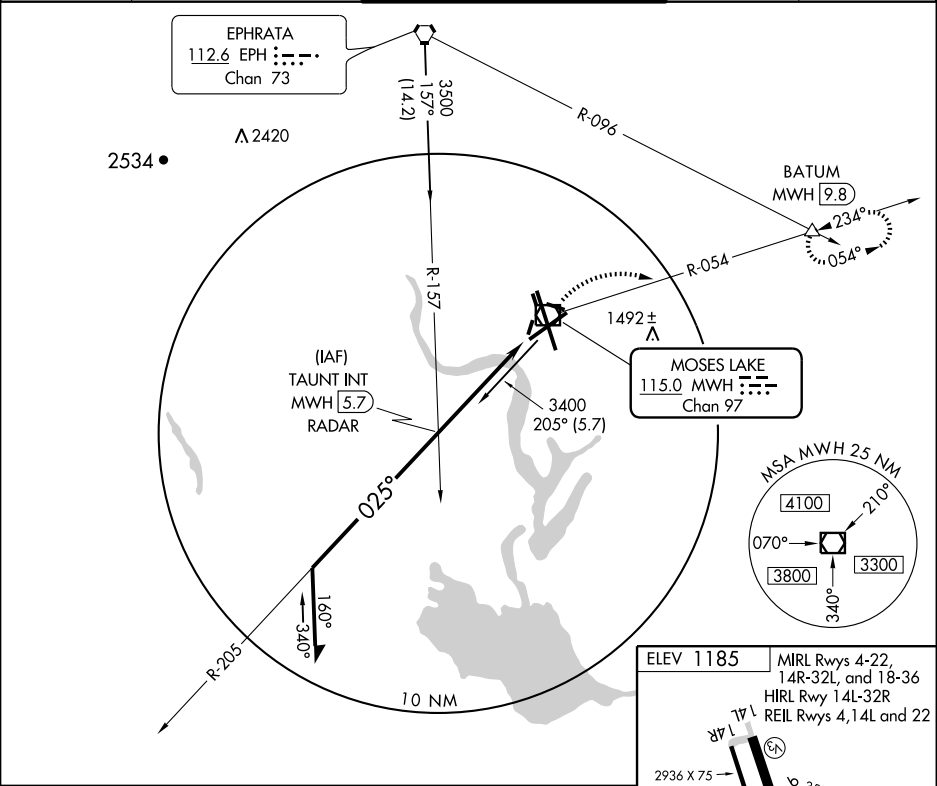
VOR RWY 4

MOSES LAKE/ GRANT COUNTY INTL (MWH)

VOR/DME MWH	APP CRS	Rwy Idg	10000
115.0	025°	TDZE	1185
Chan 97		Apt Elev	1185

MISSED APPROACH: Climbing right turn to 4000 via MWH R-054 to BATUM Int/MWH 9.8 DME and hold.

ATIS 119.05	GRANT COUNTY APP CON * 126.4 379.95	GRANT COUNTY TOWER * 118.25 (CTAF) 128.0 257.8	GND CON 121.9	UNICOM 122.95
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CATEGORY	A	B	C	D
S-4	1620-1	435 (500-1)	1620-1½ 435 (500-1½)	1620-1½ 435 (500-1½)
CIRCLING	1680-1	495 (500-1)	1680-1½ 495 (500-1½)	1740-2 555 (600-2)

FAF to MAP 4.6 NM					
Knots	60	90	120	150	180
Min:Sec	4:36	3:04	2:18	1:50	1:32

VOR/DME MWH	APP CRS	Rwy Idg	10000
115.0	231°	TDZE	1161
Chan 97		Apt Elev	1185

VOR RWY 22

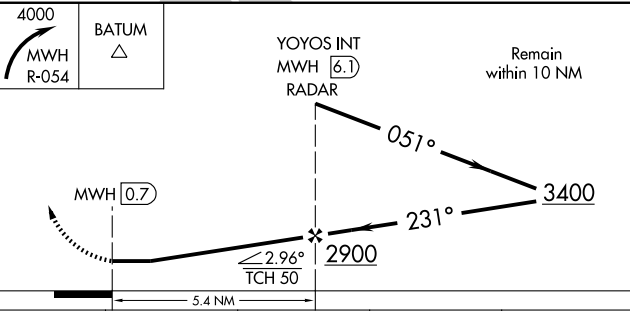
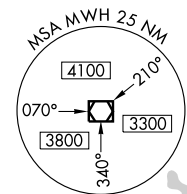
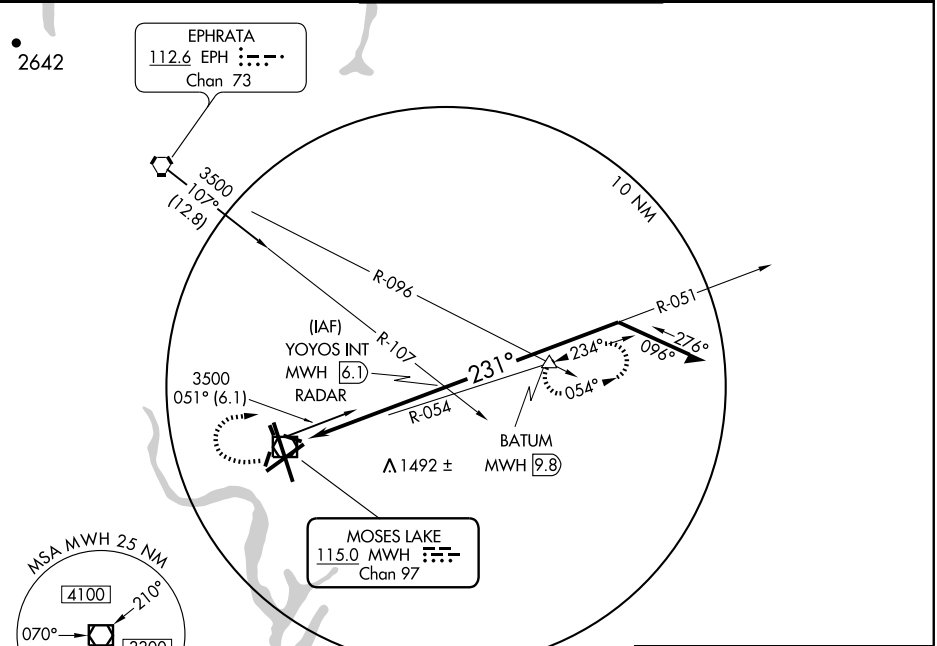
MOSES LAKE/GRANT COUNTY INTL (MWH)

▼

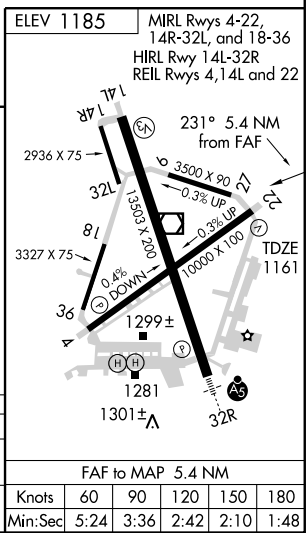
▲

MISSED APPROACH: Climbing right turn to 4000 via MWH R-054 to BATUM Int/MWH 9.8 DME and hold.

ATIS 119.05	GRANT COUNTY APP CON ★ 126.4 379.95	GRANT COUNTY TOWER ★ 118.25 (CTAF) 128.0 257.8	GND CON 121.9	UNICOM 122.95
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CATEGORY	A	B	C	D
S-22	1760-1 599 (600-1)		1760-1½ 599 (600-1½)	1760-1¾ 599 (600-1¾)
CIRCLING	1760-1 575 (600-1)		1760-1½ 575 (600-1½)	1760-2 575 (600-2)



NW-1. 17 DEC 2009 to 14 JAN 2010

VOR/DME MWH
115.0
Chan 97

APP CRS
325°

Rwy Idg
TDZE
Apt Elev
13503
1164
1185

MOSES LAKE/ GRANT COUNTY INTL (MWH)

ATIS
119.05

GRANT COUNTY APP CON *
126.4 379.95

GRANT COUNTY TOWER *
118.25 (CTAF) 128.0 257.8

GND CON
121.9

UNICOM
122.95

MALSR

MISSED APPROACH: Climbing right turn to 4000 via MWH R-054 to BATUM Int/MWH 9.8 DME and hold.

ATIS 119.05	GRANT COUNTY APP CON * 126.4 379.95	GRANT COUNTY TOWER * 118.25 (CTAF) 128.0 257.8	GND CON 121.9	UNICOM 122.95
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4000 MWH R-054	BATUM △	PELLY LOM MWH 6	Remain within 10 NM	
VOR/DME	2800	2600		
1.3	4.7 NM			
CATEGORY	A	B	C	D
S-32R	1620/24 456 (500-½)	1620/40 456 (500-¾)	1620/50 456 (500-1)	
CIRCLING	1680-1 495 (500-1)	1680-1½ 495 (500-1½)	1740-2 555 (600-2)	

REIL Rwy 4, 14L and 22

HIRL Rwy 14L-32R

MRL Rwy 4-22, 14R-32L, and 18-36

NW-1, 17 DEC 2009 to 14 JAN 2010

AIRPORT DIAGRAM

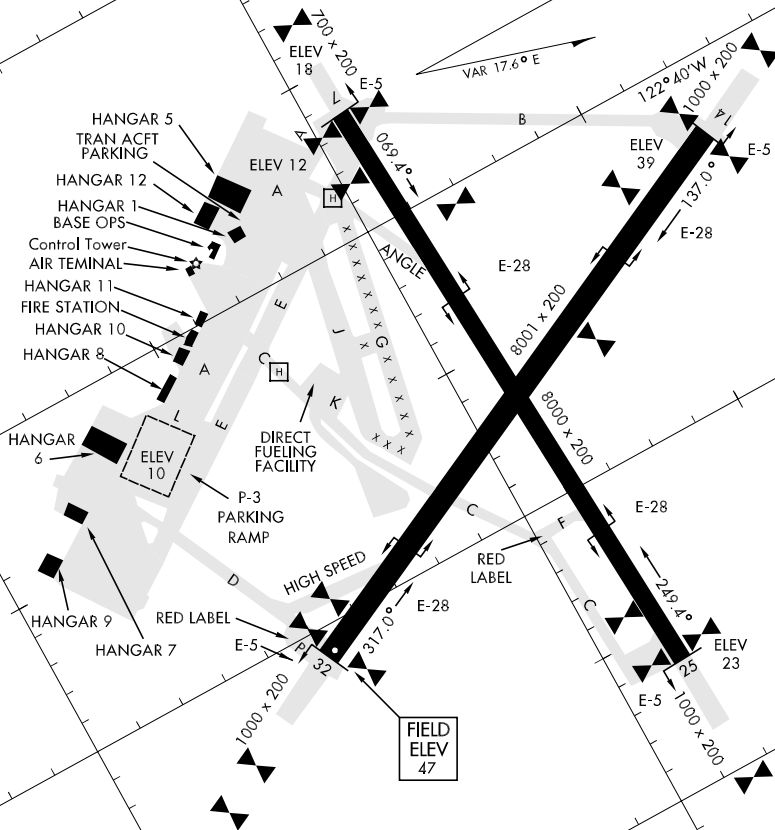
AFD-451 [USN]

OAK HARBOR, WASHINGTON

ATIS 134.15 281.5
WHIDBEY TOWER
127.9 340.2
GND CON
121.75 336.4
CINC DEL
135.1 379.9

APRIL 2008
ANNUAL RATE OF CHANGE
0.2°W

NW-1, 17 DEC 2009 to 14 JAN 2010



RWY 7-25
PCN 45 R/B/W/T
RWY 14-32
PCN 73 R/B/W/T

AIRPORT DIAGRAM

OAK HARBOR, WASHINGTON

TACAN NUW Chan 85	APCH CRS 058°	Rwy Idg TDZE Arpt Elev 8000 25 47
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JAL-451 [USN]

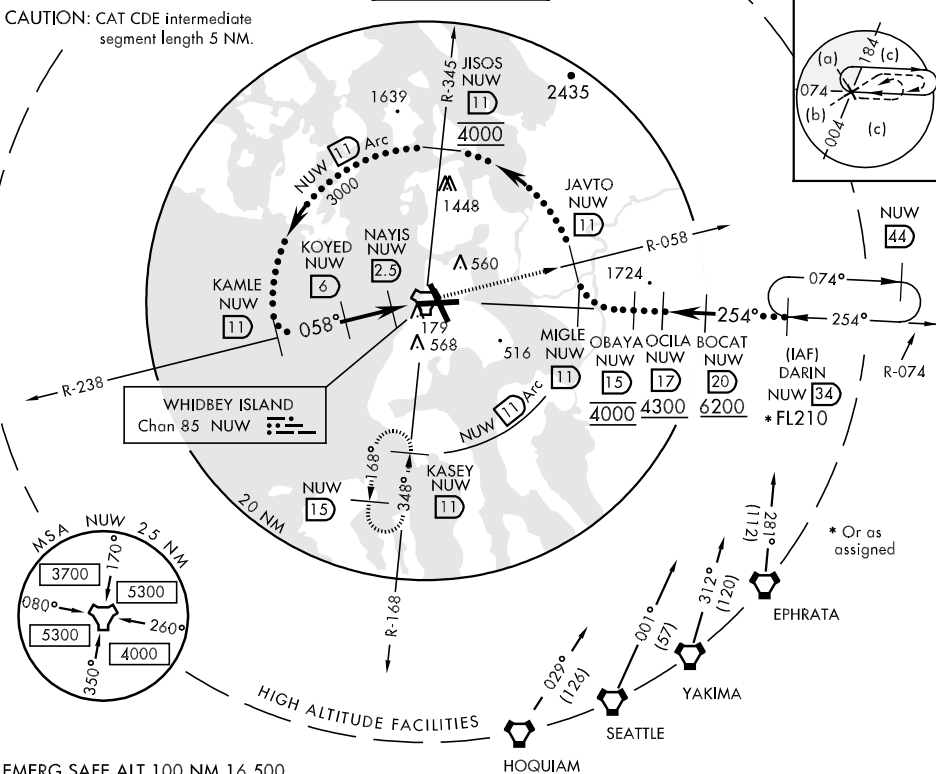
WHIDBEY ISLAND NAS (AULT FLD) (NUW)



MISSED APPROACH: Climb to 3000 via R-058 to JAVTO, then arc SE of NUW TACAN via 11 DME Arc to KASEY and hold.

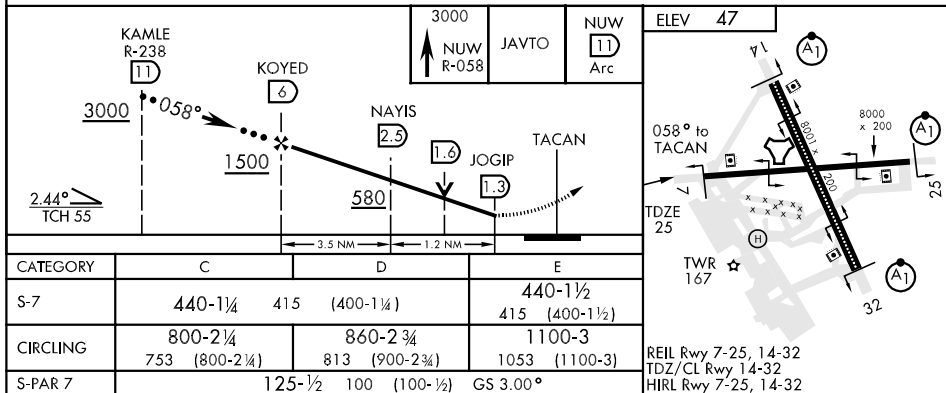
ATIS 134.15 281.5	WHIDBEY APP CON 120.7 270.8 118.2 285.65 EAST WEST	WHIDBEY TOWER 127.9 340.2	GND CON 121.75 336.4	CLNC DEL 135.1 379.9	ASR/PAR
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CAUTION: CAT CDE intermediate segment length 5 NM.



NW-1, 17 DEC 2009 to 14 JAN 2010

EMERG SAFE ALT 100 NM 16,500



OAK HARBOR, WASHINGTON

48°21'N-122°39'W

WHIDBEY ISLAND NAS (AULT FLD) (NUW)

07186

TACAN NUW Chan 85	APCH CRS 141°	Rwy Idg 8001 TDZE 39 Arpt Elev 47	JAL-451 [USN]	WHIDBEY ISLAND NAS (AULT FLD) (NUW)
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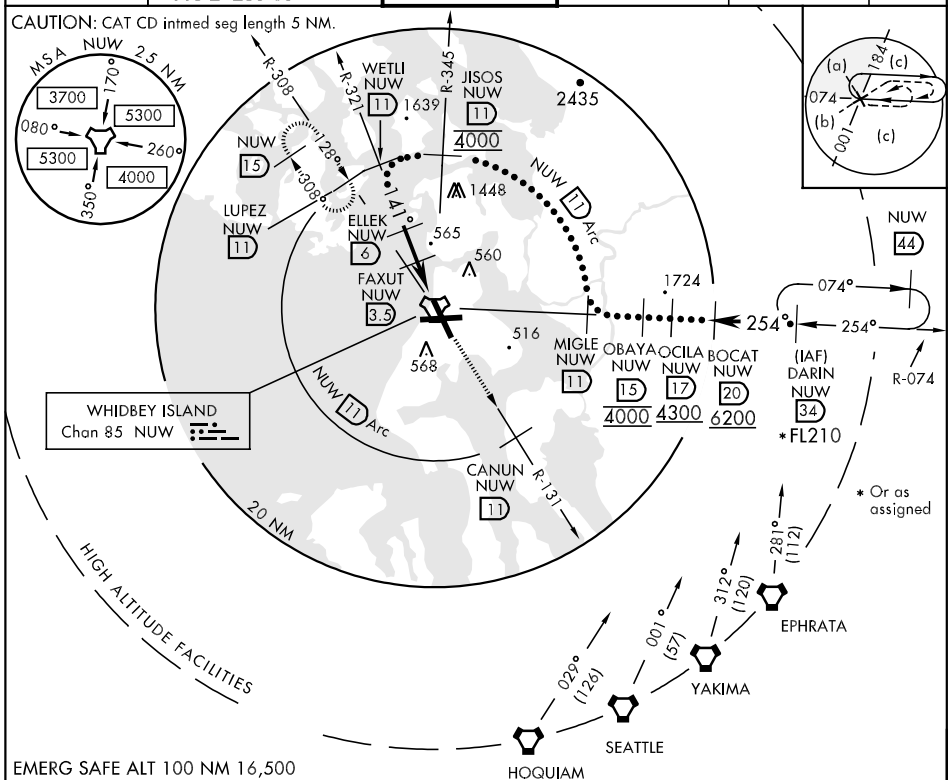
▼ *When ALS inop, increase vis CAT C to 1½ miles, CAT D to 1¾ miles, CAT E to 2 miles.
 ** When ALS inop, increase PAR CAT CDE to ½ mile.



MISSED APPROACH: Climb to 4000 via R-131 to CANUN, then arc SW of NUW TACAN via 11 DME Arc to LUPEZ and hold.

ATIS 134.15 281.5	WHIDBEY APP CON 120.7 270.8 EAST 118.2 285.65 WEST	WHIDBEY TOWER 127.9 340.2	GND CON 121.75 336.4	CLNC DEL 135.1 379.9	ASR/PAR
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CAUTION: CAT CD intmed seg length 5 NM.



WETLI R-321 (11)

3000

141°

ELLEK (6)

1800

FAXUT (3.5)

1020

JOVPO (1.7)

TACAN

2.5 NM

2.7 NM

4000

NUW R-131

CANUN

NUW (11) Arc

2.88° TCH 55

CATEGORY	C	D	E
S-14 *	620-1 581 (600-1)	620-1¼ 581 (600-1¼)	620-1½ 581 (600-1½)
CIRCLING	800-2¼ 753 (800-2¼)	860-2¾ 813 (900-2¾)	1100-3 1053 (1100-3)
S-PAR 14 **	139-¼	100 (100-¼)	GS 3.00°

ELEV 47

141° to TACAN

TDZE 39

8000 x 200

TWR 167

32

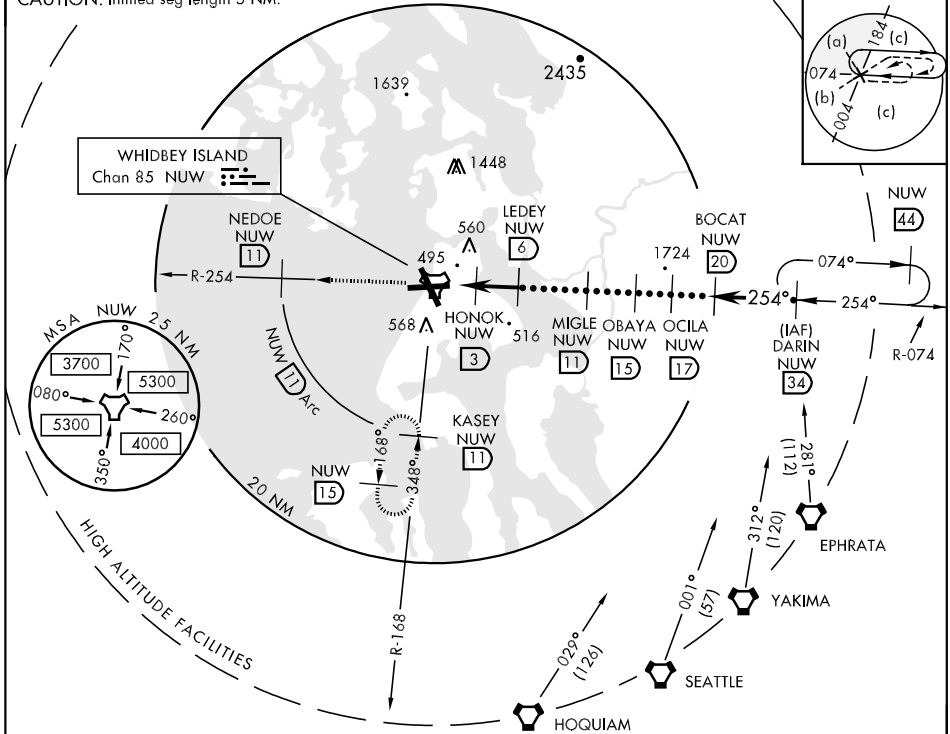
REIL Rwy 7-25, 14-32

TDZ/CL Rwy 14-32

HIRL Rwy 7-25, 14-32

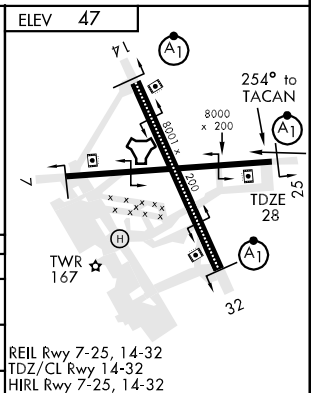
TACAN NUW Chan 85	APCH CRS 254°	Rwy Idg 8000 TDZE 28 Arpt Elev 47	JAL-451 [USN]	WHIDBEY ISLAND NAS (AULT FLD) (NUW)			
<div>▼ * When ALS inop, increase vis CAT C to 2 miles, CAT D to 2¼ miles, CAT E to 2 ½ miles. ** When ALS inop, increase vis CAT CDE to ¾ miles.</div>			ALSF-1 <div>A1</div>	MISSED APPROACH: Climb to 3000 via R-254 to NEDOE, then arc SW of NUW TACAN via 11 DME Arc to KASEY and hold.			
ATIS 134.15 281.5		WHIDBEY APP CON 120.7 270.8 EAST 118.2 285.65 WEST	WHIDBEY TOWER 127.9 340.2		GND CON 121.75 336.4	CLNC DEL 135.1 379.9	ASR/PAR

CAUTION: intmed seg length 5 NM.



EMERG SAFE ALT 100 NM 16,500

3000 ↑ NUW R-254	NEDOE NUW 11 Arc	MIGLE 11	OBAYA 15	OCILA 17	BOCAT 20	DARIN R-074 34 NUW
TACAN	KIGVE 1.7	HONOK 2.8	LEDEY 3	3000	4300	6200
	1.3 NM	3 NM				
CATEGORY	C	D	E			
S-25 *	760-1½ 732 (800-1½)	760-1¾ 732 (800-1¾)	760-2 732 (800-2)			
CIRCLING	800-2¼ 753 (800-2¼)	860-2¾ 813 (900-2¾)	1100-3 1053 (1100-3)			
S-PAR 25 **	228-1½	200 (200-½)	GS 3.00°			



TACAN NUW Chan 85	APCH CRS 311°	Rwy Idg 8001 TDZE 47 Arpt Elev 47
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JAL-451 [USN]

WHIDBEY ISLAND NAS (AULT FLD) (NUW)

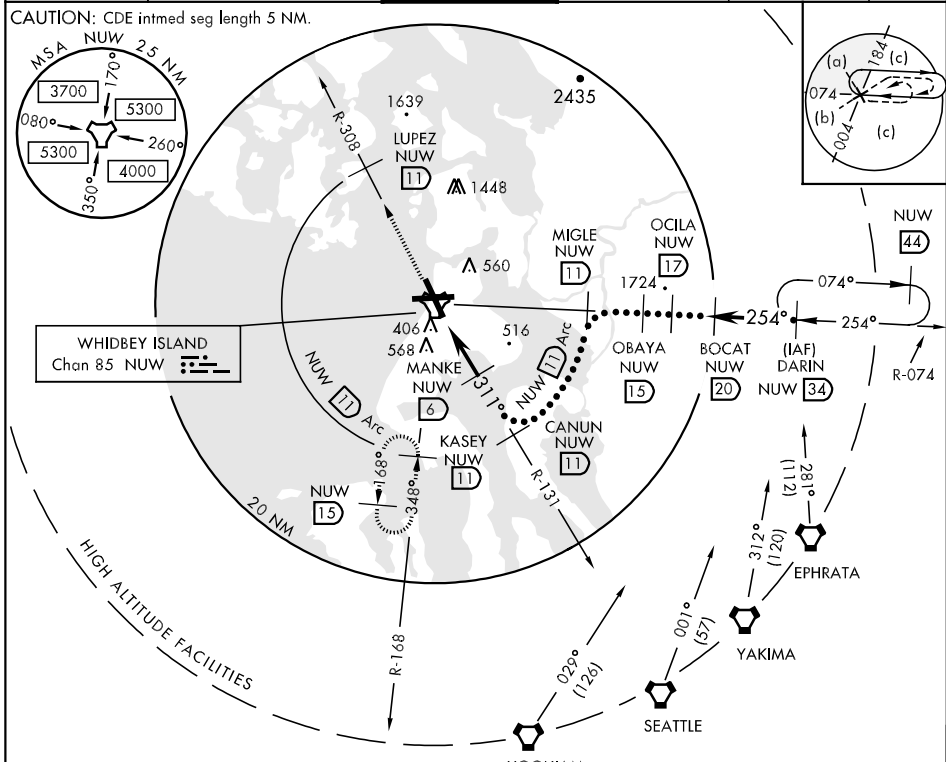
- ▼ * When ALS inop, increase vis CAT C to 1¾ miles,
CAT D to 2 miles, CAT E to 2¼ miles.
** When ALS inop, increase vis CAT CDE to ¾ mile.



MISSED APPROACH: Climb to 3000 via R-308 to LUPEZ,
then arc W of NUW TACAN via 11 DME Arc
to KASEY and hold.

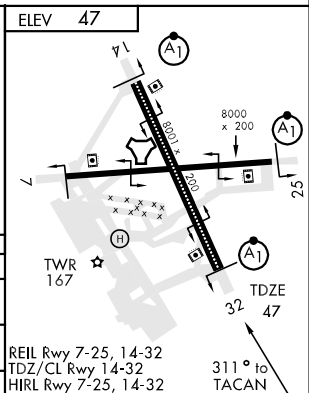
ATIS 134.15 281.5	WHIDBEY APP CON 120.7 270.8 EAST 118.2 285.65 WEST	WHIDBEY TOWER 127.9 340.2	GND CON 121.75 336.4	CLNC DEL 135.1 379.9	ASR/PAR
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CAUTION: CDE intmd seg length 5 NM.



EMERG SAFE ALT 100 NM 16,500

3000 NUW R-308	LUPEZ NUW (11) Arc	CANUN R-131 NUW (11)	MIGLE R-074 NUW (11)	OBAYA NUW (15)	OCILA NUW (17)	(IAF) DARIN R-074 NUW (34)	ELEV 47
TACAN	NAVOE 1.3	MANKE 2.6	6	3000	4000	4000	* FL 210
	4.2 NM	1500	311°	3000	4000	4000	* Or as assigned
CATEGORY	C	D	E				
S-32*	660-1¼ 613 (700-1¼)	660-1½ 613 (700-1½)	660-1¾ 613 (700-1¾)				
CIRCLING	800-2¼ 753 (800-2¼)	860-2¾ 813 (900-2¾)	1100-3 1053 (1100-3)				
S-PAR 32**	247-½	200 (200-½)	GS 3.00°				



LOC I-NUW 110.1	APCH CRS 137°	Rwy ldg 8001 TDZE 39 Arpt Elev 47
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AL-451 [USN]

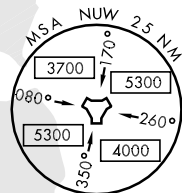
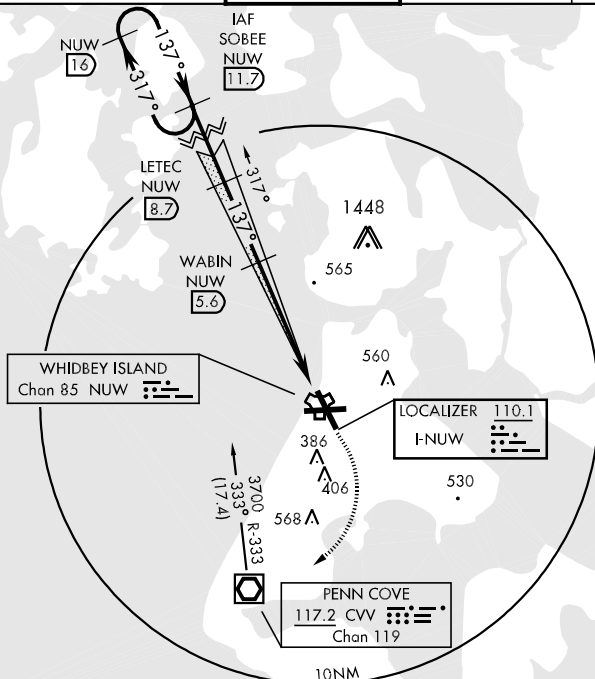
WHIDBEY ISLAND NAS (AULT FLD) (KNUW)

▼ * When ALS inop, increase vis CAT ABCDE to $\frac{3}{4}$ mile.
 ** When ALS inop, increase vis CAT ABCDE to 1 mile.
 *** When ALS inop, increase vis CAT ABCDE to $\frac{1}{2}$ mile.



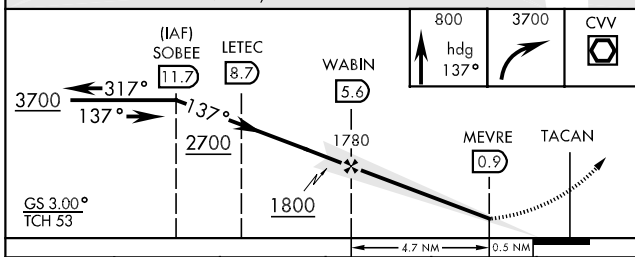
MISSED APPROACH: Climb to 800 via hdg 137°, then climbing right turn to 3700, direct CVV VOR/DME, then via CVV R-333 to SOBEE and hold.

ATIS 134.15 281.5	WHIDBEY APP CON 120.7 270.8 EAST 118.2 285.65 WEST	WHIDBEY TOWER 127.9 340.2	GND CON 121.75 336.4	CLNC DEL 135.1 379.9	ASR/PAR
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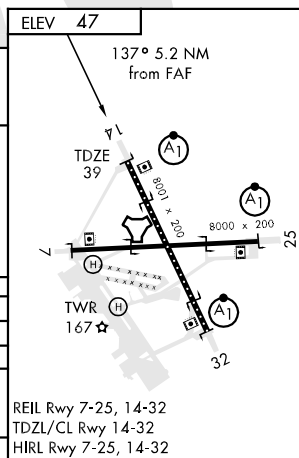


DME REQUIRED

EMERG SAFE ALT 100 NM 16,500



CATEGORY	A	B	C	D	E
S-ILS 14*	239- $\frac{1}{2}$ 200 (200- $\frac{1}{2}$)				
S-LOC 14**	300- $\frac{1}{2}$ 261 (300- $\frac{1}{2}$)	300- $\frac{3}{4}$ 261 (300- $\frac{3}{4}$)			
CIRCLING	780-1 733 (800-1)	800-1 $\frac{1}{4}$ 753 (800-1 $\frac{1}{4}$)	800-2 $\frac{1}{4}$ 753 (800-2 $\frac{1}{4}$)	860-2 $\frac{3}{4}$ 813 (900-2 $\frac{3}{4}$)	1100-3 1053 (1100-3)
S-PAR 14***	139- $\frac{1}{4}$ 100 (100- $\frac{1}{4}$) GS 3.0°				



LOC I-NUW 110.1	APCH CRS 137°	Rwy ldg TDZE Arpt Elev 8001 39 47
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AL-451 [USN]

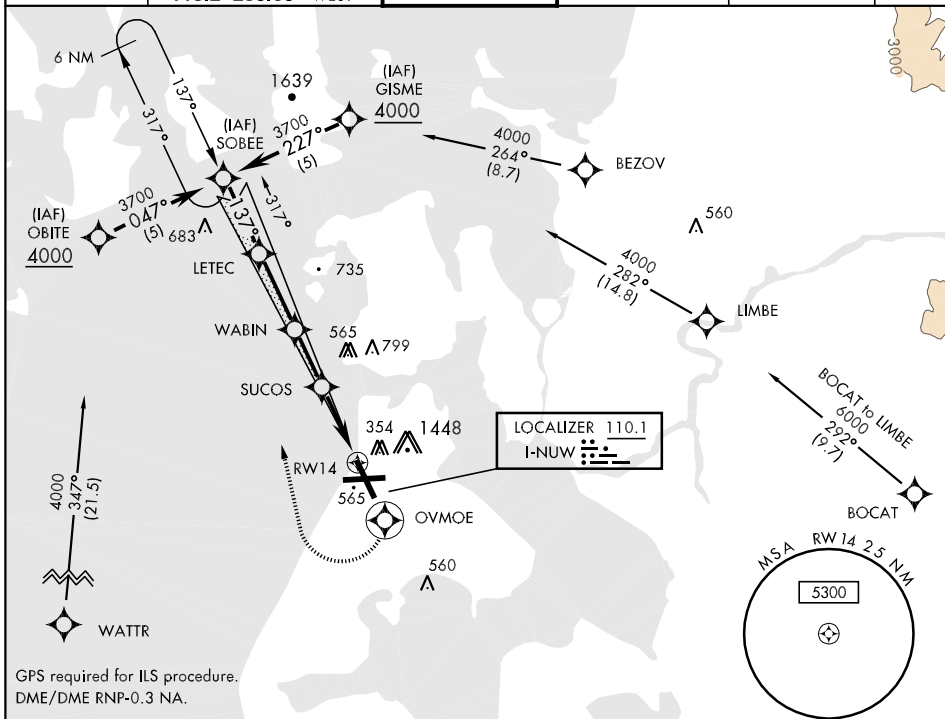
WHIDBEY ISLAND NAS (AULT FLD) (NUW)

▼ * When ALS inop, increase vis ALL CAT to $\frac{3}{4}$ mile.
 ** When ALS inop, increase vis CAT AB to 1 mile, CAT C to $1\frac{1}{4}$ miles, CAT D to $1\frac{1}{2}$ miles, CAT E vis to $1\frac{3}{4}$ miles.



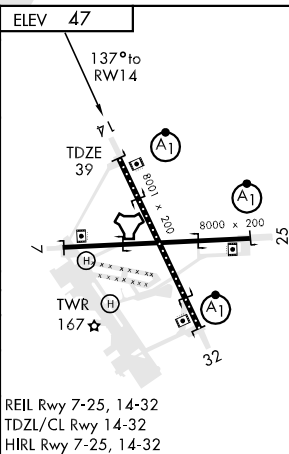
MISSED APPROACH: Climb to 3700 direct OVMOE, then climbing right turn direct SOBEE and hold.

ATIS 134.15 281.5	WHIDBEY APP CON 120.7 270.8 EAST 118.2 285.65 WEST	WHIDBEY TOWER 127.9 340.2	GND CON 121.75 336.4	CLNC DEL 135.1 379.9	ASR/PAR
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EMERG SAFE ALT 100 NM 16,500

SOBEE					
3700					
137°					
LETETEC					
2700					
1800					
1040					
RW14					
SUCOS min alt LNAV only					
3700 OVMOE					
SOBEE					
GS 3.00° TCH 53					
3 NM 3 NM 2.3 NM 3 NM					
CATEGORY	A	B	C	D	E
S-ILS 14 *	239- $\frac{1}{2}$ 200 (200- $\frac{1}{2}$)				
LNAV MDA **	460- $\frac{1}{2}$	421 (500- $\frac{1}{2}$)	460- $\frac{3}{4}$ 421 (500- $\frac{3}{4}$)	460-1 421 (500-1)	460-1 $\frac{1}{4}$ 421 (500-1 $\frac{1}{4}$)
CIRCLING	780-1 733 (800-1)	800-1 $\frac{1}{4}$ 753 (800-1 $\frac{1}{4}$)	800-2 $\frac{1}{4}$ 753 (800-2 $\frac{1}{4}$)	860-2 $\frac{3}{4}$ 813 (900-2 $\frac{3}{4}$)	1100-3 1053 (1100-3)



PENN COVE ONE DEPARTURE (CVV1.CVV)

WHIBDEY ISLAND VORTIS (PSELTED) (RWY07)
OAK HARBOR, WASHINGTON

ATIS 134.15 281.5
CLNC DEL
135.1 379.9
GND CON
121.75 336.4
WHIBDEY TOWER
127.9 340.2
WHIBDEY DEP CON
120.7 270.8 EAST
118.2 285.65 WEST

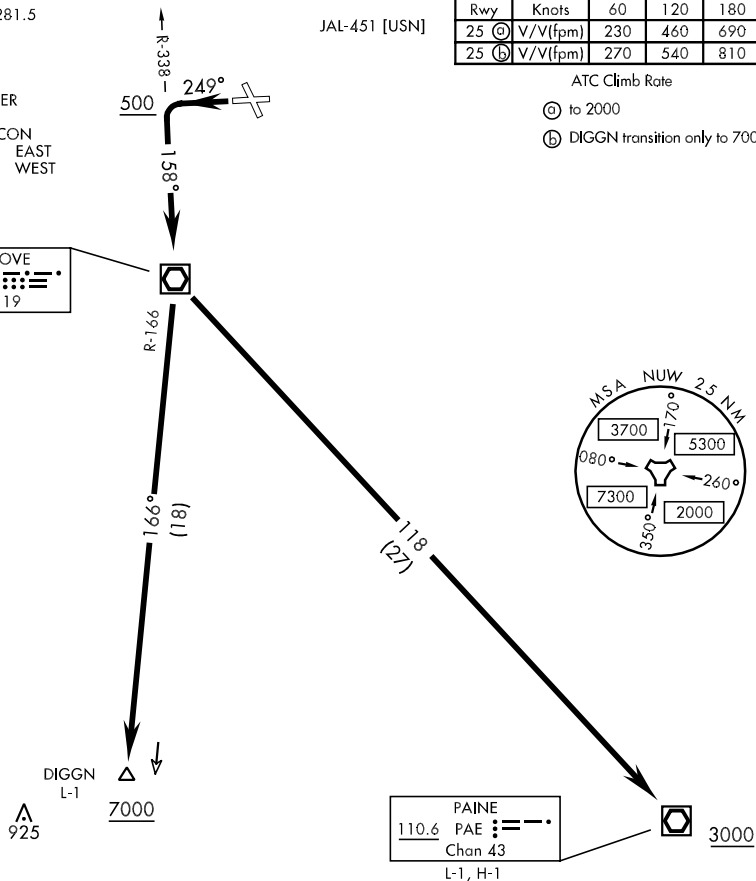
JAL-451 [USN]

Rwy	Knots	60	120	180	240
25 (A) V/V(fpm)		230	460	690	920
25 (B) V/V(fpm)		270	540	810	1080

ATC Climb Rate

- (A) to 2000
- (B) DIGGN transition only to 7000

PENN COVE
117.2 CVV
Chan 119



NEW-1, 17 DEC 2009 to 14 JAN 2010



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 25: Climb to 500 feet on heading 249°. Then climbing left turn to intercept CVV R-338 to CVV VOR/DME. Cross CVV VOR/DME at or above 2000 feet. Thence....

....Via assigned transition or fly heading 158° and expect vectors to join assigned route.

DIGGN TRANSITION (CVV1.DIGGN): Via CVV R-166 to DIGGN, cross DIGGN at or above 7000 feet.

PAINE TRANSITION (CVV1.PAE): Via CVV R-118 to PAE VOR/DME. Cross PAE VOR/DME at or above 3000 feet.

APCH CRS **249°**
Rwy Idg **8000**
TDZE **28**
Arpt Elev **47**

AL-451 [USN]

WHIDBEY ISLAND NAS (AULT FLD) (NUW)

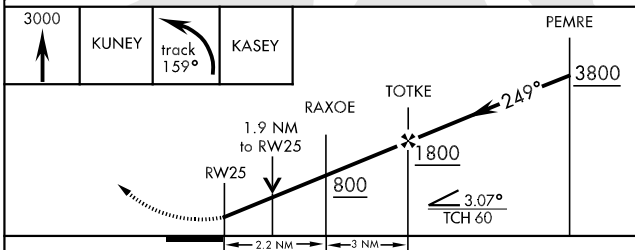
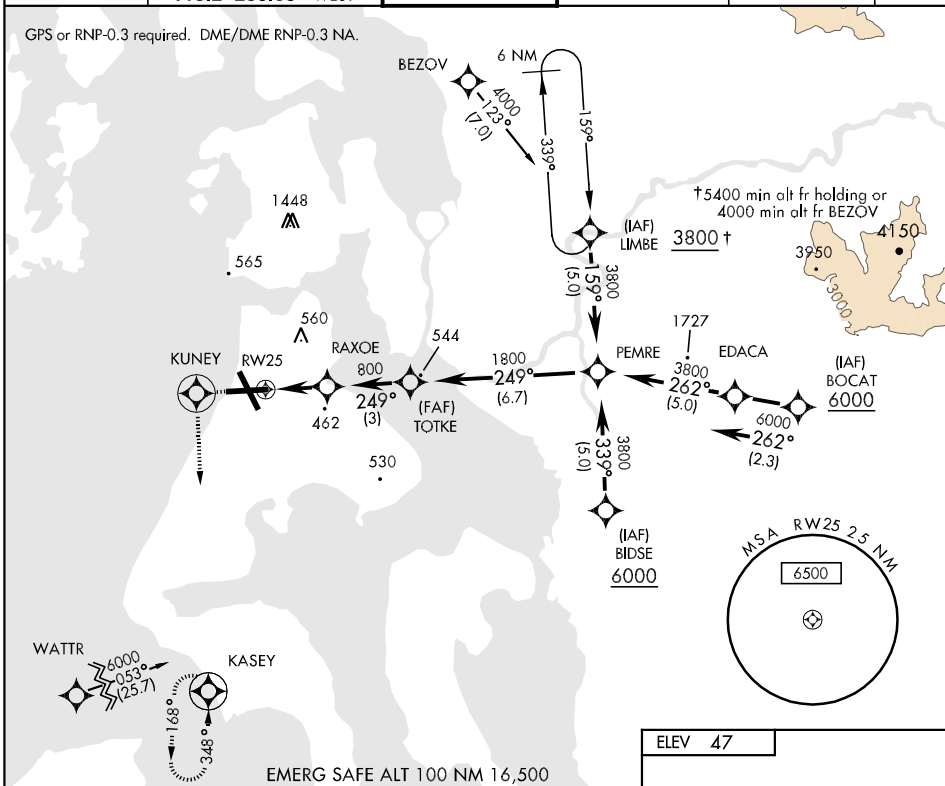
✚ * When ALS inop, increase vis CAT AB to 1 mile, CAT C to 2 miles, CAT D to 2¼ miles, CAT E to 2½ miles. PAR to ¾ mile.



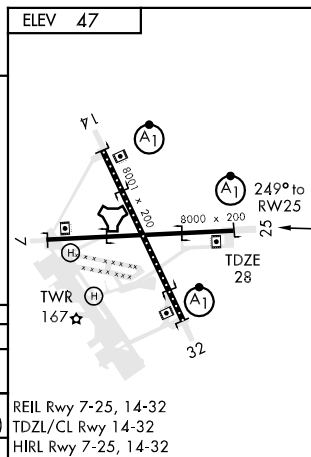
MISSED APPROACH: Climb to 3000 direct KUNEY, then turn left via track 159° to KASEY and hold.

ATIS 134.15 281.5	WHIDBEY APP CON 120.7 270.8 EAST 118.2 285.65 WEST	WHIDBEY TOWER 127.9 340.2	GND CON 121.75 336.4	CLNC DEL 135.1 379.9	ASR/PAR
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GPS or RNP-0.3 required. DME/DME RNP-0.3 NA.



CATEGORY	A	B	C	D	E
LNAV MDA*	700-½ 672 (700-½)	700-1½ 672 (700-1½)	700-1½ 672 (700-1½)	700-1¾ 672 (700-1¾)	700-2 672 (700-2)
CIRCLING	780-1 733 (800-1)	800-1¼ 753 (800-1¼)	800-2¼ 753 (800-2¼)	860-2¾ 813 (900-2¾)	1100-3 1053 (1100-3)
S-PAR 25*	228-½	200	(200-½)	GS 3.00°	



TACAN NUW Chan 85	APCH CRS 058°	Rwy Idg 8000 TDZE 25 Arpt Elev 47
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AL-451 [USN]

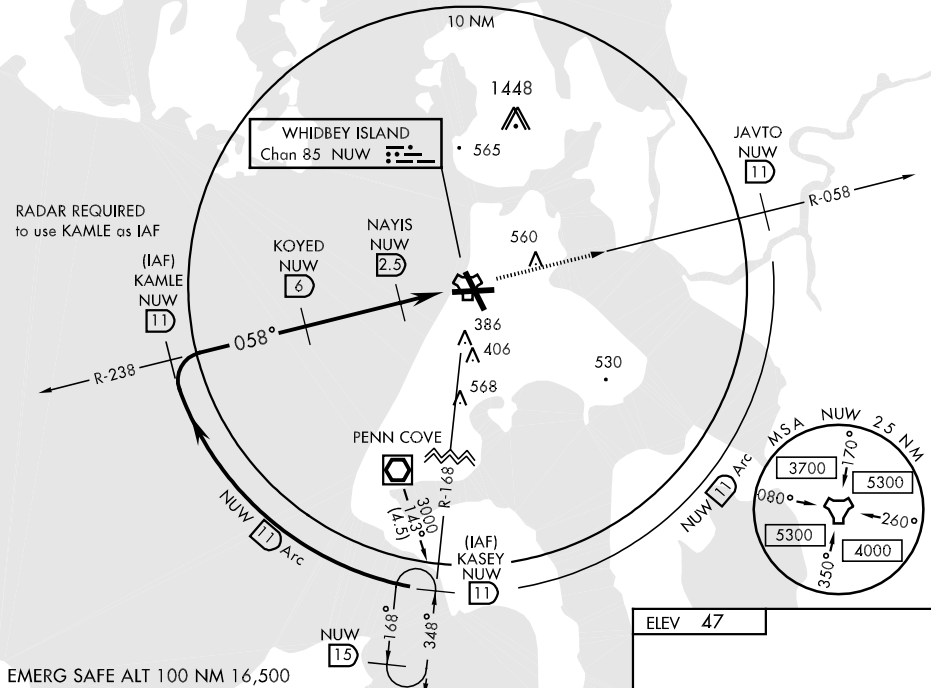
WHIDBEY ISLAND NAS (AULT FLD) (NUW)



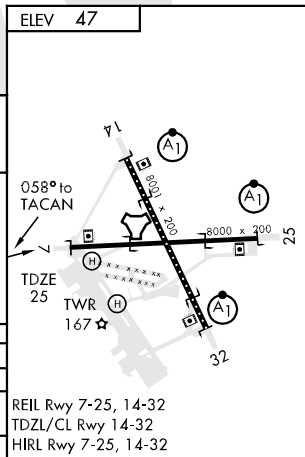
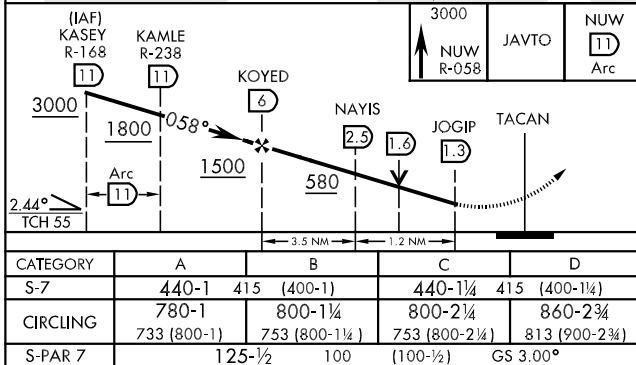
MISSED APPROACH: Climb to 3000 via R-058 to JAVTO, then arc SE of NUW TACAN via 11 DME Arc to KASEY and hold.

ATIS 134.15 281.5	WHIDBEY APP CON 120.7 270.8 EAST 118.2 285.65 WEST	WHIDBEY TOWER 127.9 340.2	GND CON 121.75 336.4	CLNC DEL 135.1 379.9	ASR/PAR
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CAUTION:
CAT CD intmd seg length 5 NM



EMERG SAFE ALT 100 NM 16,500



TACAN NUW Chan 85	APCH CRS 141°	Rwy ldg 8001 TDZE 39 Arprt Elev 47	AL-451 [USN]	WHIDBEY ISLAND NAS (AULT FLD) (NUW)
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▼ *When ALS inop, increase vis CAT AB to 1 mile,
CAT C to 1½ miles, CAT D to 1¾ miles.

** When ALS inop, increase vis CAT ABCD to ½ mile.

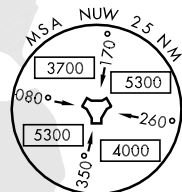
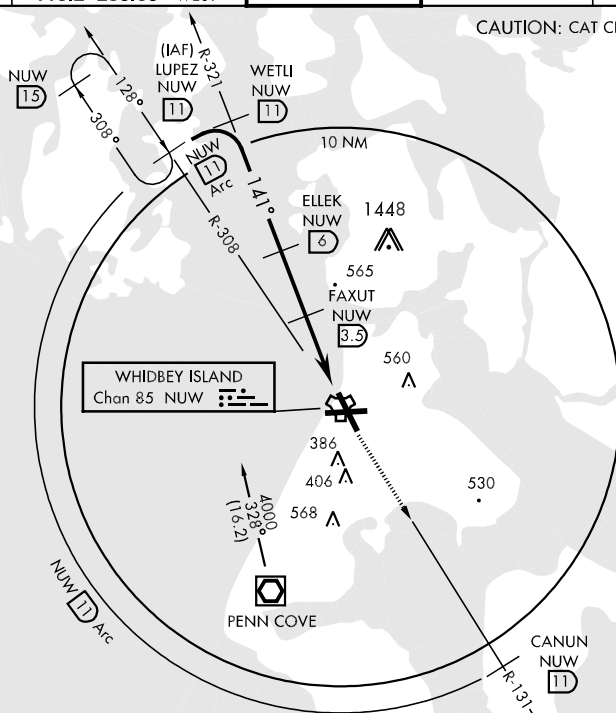
ALSF-1



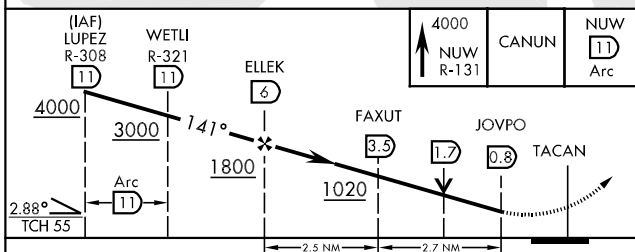
MISSED APPROACH: Climb to 4000 via R-131 to CANUN, then arc SW of NUW TACAN via 11 DME Arc to LUPEZ and hold.

ATIS 134.15 281.5	WHIDBEY APP CON 120.7 270.8 EAST 118.2 285.65 WEST	WHIDBEY TOWER 127.9 340.2	GND CON 121.75 336.4	CLNC DEL 135.1 379.9	ASR/PAR
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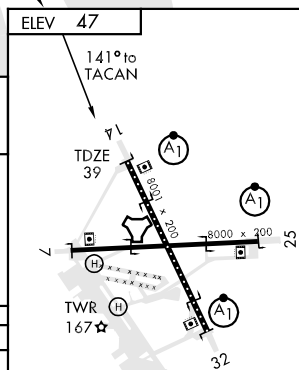
CAUTION: CAT CD intmed seg length 5 NM.



EMERG SAFE ALT 100 NM 16,500



CATEGORY	A	B	C	D
S-14*	620-½ 581 (600-½)	620-1 581 (600-1)	620-1½ 581 (600-1½)	620-2 581 (600-2)
CIRCLING	780-1 733 (800-1)	800-1½ 753 (800-1½)	800-2¼ 753 (800-2¼)	860-2¾ 813 (900-2¾)
S-PAR 14**	139-¼ 100	(100-¼)	GS 3.00°	



REIL Rwy 7-25, 14-32
TDZL/CL Rwy 14-32
HIRL Rwy 7-25, 14-32

TACAN	NUW	APCH CRS	Rwy Idg	8000		
Chan	85	254°	TDZE	28	AL-451 [USN]	WHIDBEY ISLAND NAS (AULT FLD) (NUW)
			Arpt Elev	47		

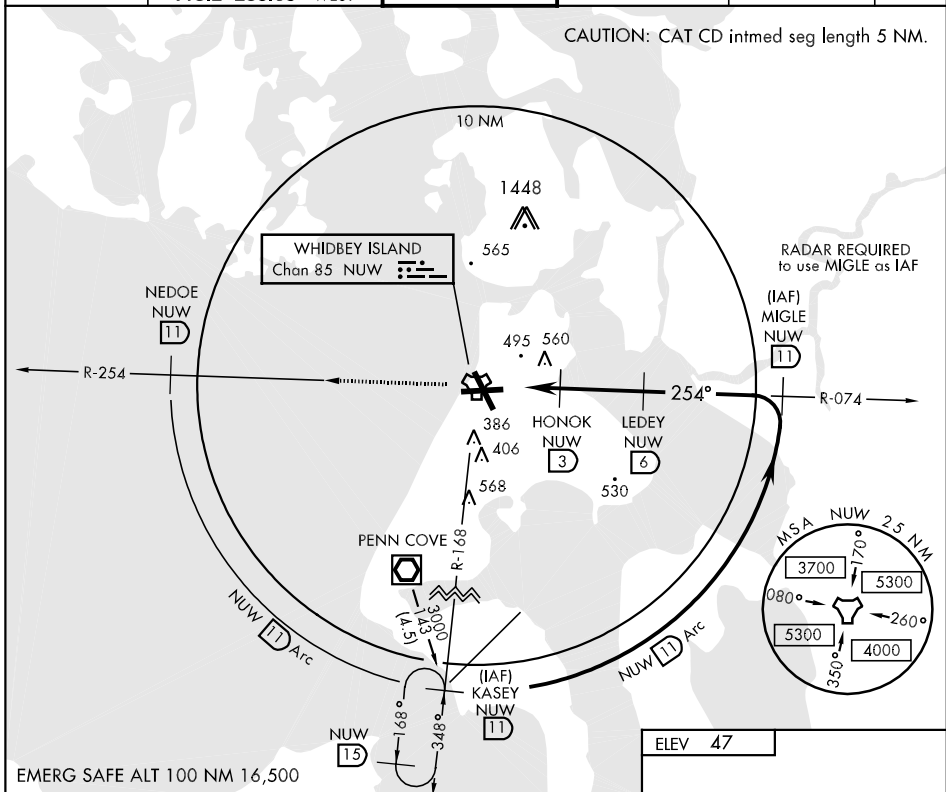
T * When ALS inop, increase vis CAT AB to 1 mile, CAT C to 2 miles, CAT D to 2¼ miles.
 ** When ALS inop, increase vis CAT ABCD to ¾ mile.

ALSF-1

MISSED APPROACH: Climb to 3000 via R-254 to NEDOE, then arc SW of NUW TACAN via 11 DME Arc to KASEY and hold.

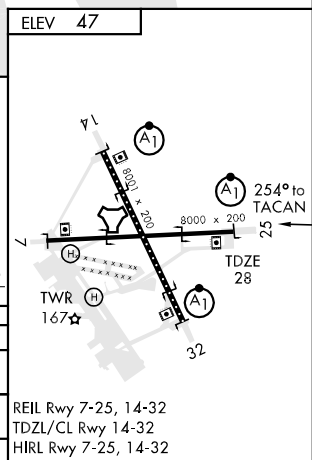
ATIS		WHIDBEY APP CON		WHIDBEY TOWER		GND CON		CLNC DEL		ASR/PAR	
134.15	281.5	120.7	270.8	EAST	127.9	340.2	121.75	336.4	135.1		379.9
		118.2	285.65	WEST							

CAUTION: CAT CD intmed seg length 5 NM.



NW-1, 17 DEC 2009 to 14 JAN 2010

CATEGORY	A	B	C	D
S-25 *	760-½ 732 (800-½)		760-1½ 732 (800-1½)	760-1¾ 732 (800-1¾)
CIRCLING	780-1 733 (800-1)	800-1¼ 753 (800-1¼)	800-2¼ 753 (800-2¼)	860-2¾ 813 (900-2¾)
S-PAR 25**	228-½	200	(200-½)	GS 3.00°



TACAN NUW Chan 85	APCH CRS 311°	Rwy ldg 8001 TDZE 47 Arpt Elev 47	AL-451 [USN]	WHIDBEY ISLAND NAS (AULT FLD) (NUW)
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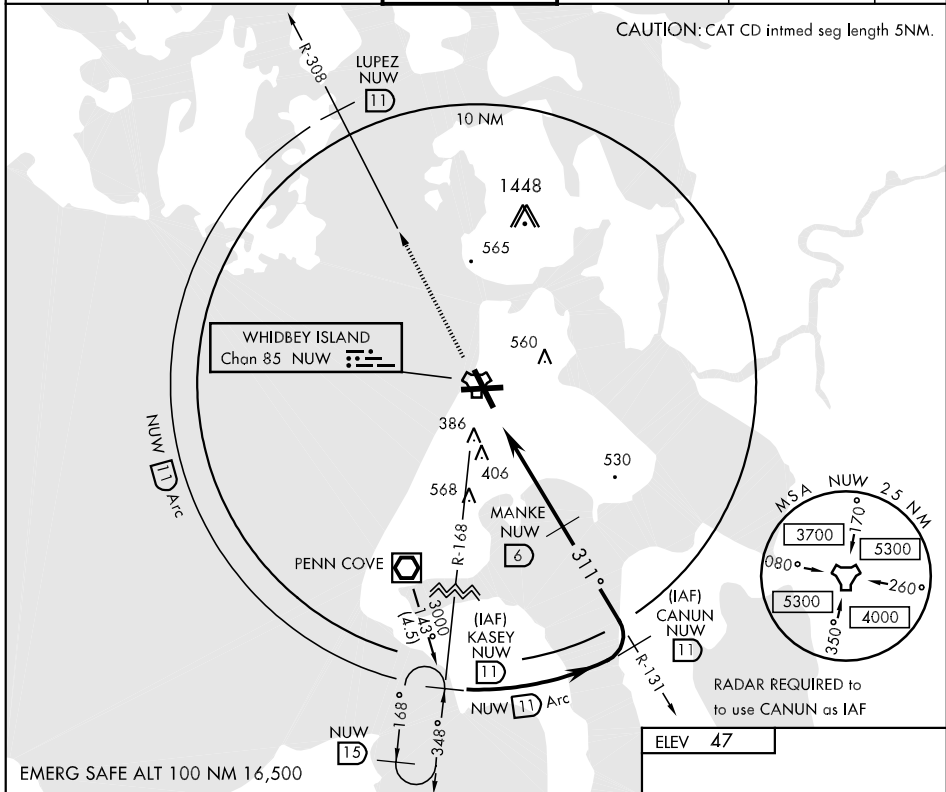
▼ * When ALS inop, increase vis CAT AB to 1 mile, CAT C to 1 ¾ Miles, CAT D to 2 miles.
 ** When ALS inop, increase vis CAT ABCD to ¾ mile.



MISSED APPROACH: Climb to 3000 via R-308 to LUPEZ, then Arc SW of NUW TACAN via 11 DME Arc to KASEY and hold.

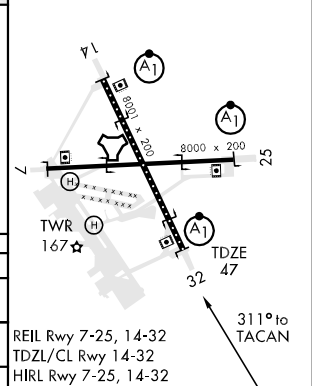
ATIS 134.15 281.5	WHIDBEY APP CON 120.7 270.8 EAST 118.2 285.65 WEST	WHIDBEY TOWER 127.9 340.2	GND CON 121.75 336.4	CLNC DEL 135.1 379.9	ASR/PAR
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CAUTION: CAT CD intmd seg length 5NM.



EMERG SAFE ALT 100 NM 16,500

3000 NUW R-308	LUPEZ	NUW 11 Arc	(IAF) CANUN R-131 11	(IAF) KASEY R-168 11
TACAN	NAVOE	MANKE		
	1.3	2.6	311°	3000
		1500	1800	
			Arc 11	2.61° TCH 55
CATEGORY	A	B	C	D
S-32*	660-½	613 (700-½)	660-1¼ 613 (700-1¼)	660-1½ 613 (700-1½)
CIRCLING	780-1 733 (800-1)	800-1¼ 753 (800-1¼)	800-2¼ 753 (800-2¼)	860-2¾ 813 (900-2¾)
S-PAR 32**	247-½	200	(200-½)	GS 3.00°



APP CRS	Rwy Idg	2758
071°	TDZE	193
	Apt Elev	193

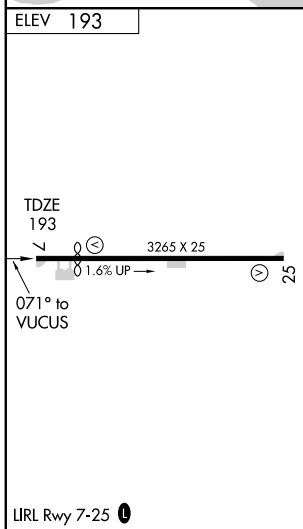
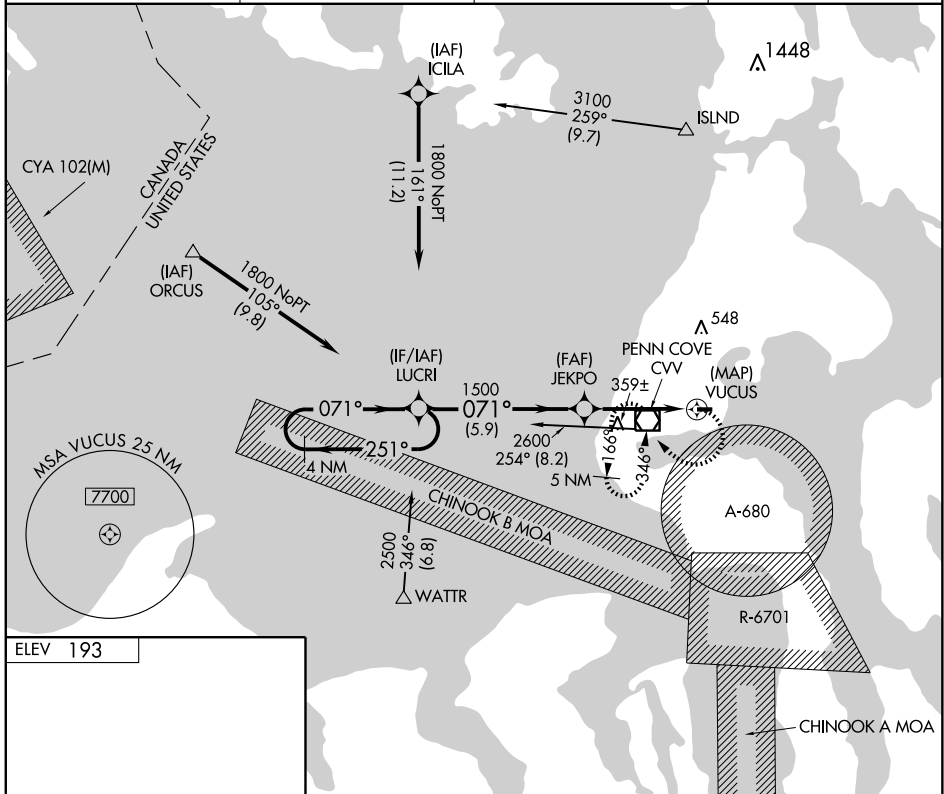
RNAV (GPS) RWY 7

OAK HARBOR/AJ EISENBERG (OKH)

V DME/DME RNP- 0.3 NA. Visibility reduction by helicopters NA.
A Circling north of Rwy 7-25 NA at night.
ASR When local altimeter setting not received, use Whidbey Island NAS altimeter setting and increase all MDAs 40 feet.

MISSED APPROACH: Climbing right turn to 3400 direct CVV VOR/DME and hold, continue climb-in-hold to 3400.

AWOS-3 132.775	WHIDBEY ATIS 134.15 281.5	WHIDBEY APP CON 118.2 285.65	UNICOM 122.8 (CTAF) 1
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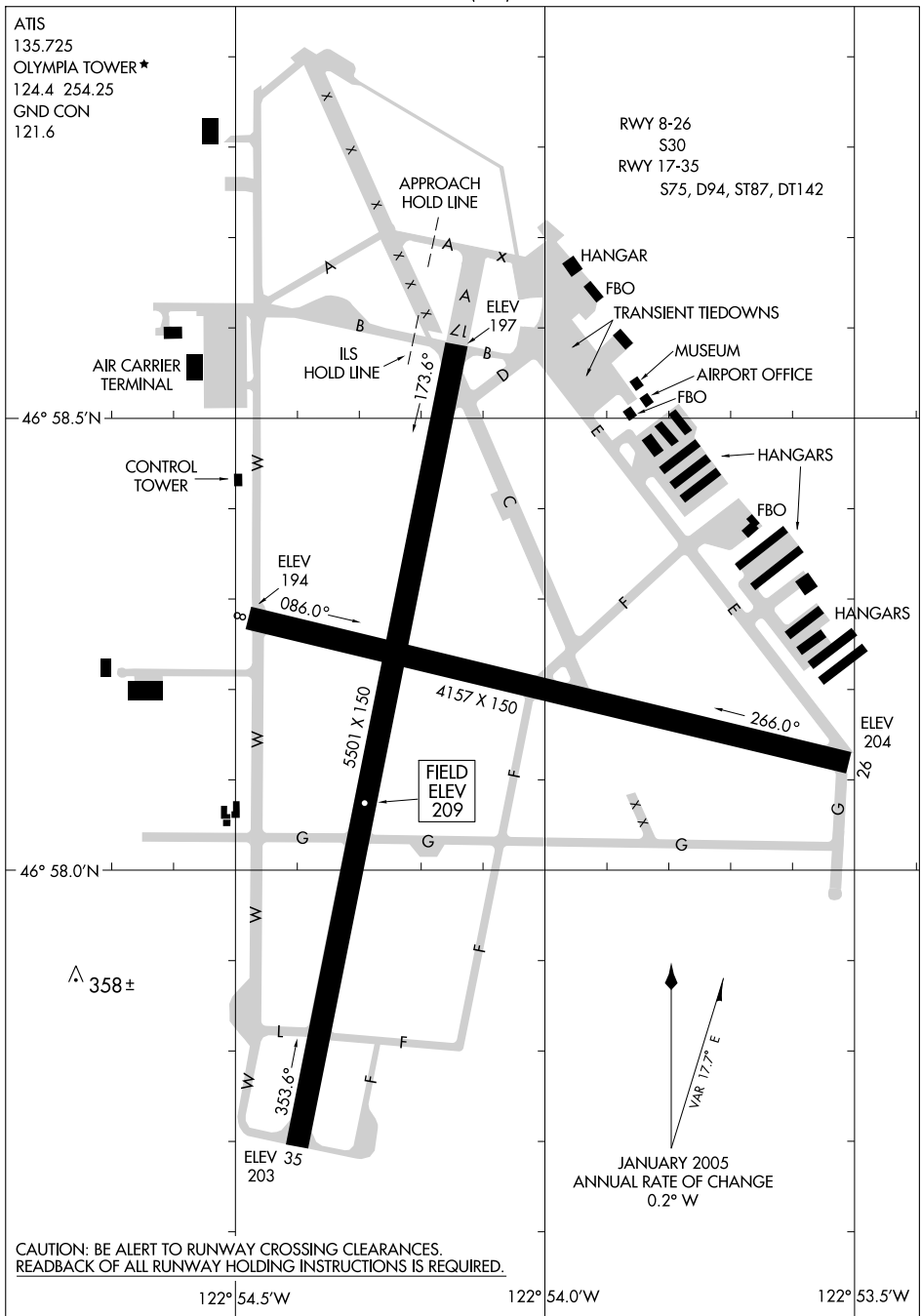


<p>4 NM Holding Pattern</p> <p>LUCRI</p> <p>1800 ← 251° 071° →</p> <p>JEKPO</p> <p>1500</p> <p>VUCUS</p> <p>3.03° TCH 45</p> <p>5.9 NM 4 NM 0.1</p>				<p>3400</p> <p>CVV</p>
CATEGORY	A	B	C	D
LNAV MDA	620-1	427 (500-1)	NA	
CIRCLING	620-1	660-1	NA	
	427 (500-1)	467 (500-1)		

AIRPORT DIAGRAM

AL-645 (FAA)

OLYMPIA RGNL (OLM)
OLYMPIA, WASHINGTON



LOC I-OLM <u>111.9</u>	APP CRS 172°	Rwy Idg 5501 TDZE 207 Apt Elev 209
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ILS or LOC RWY 17

OLYMPIA RGNL (OLM)

- A** RADAR or DME required. When local altimeter setting not received, use Sanderson Field altimeter setting and increase all DA 53 feet and all MDA 60 feet; increase circling visibility Cat D $\frac{1}{4}$ mile. For inoperative MALS, when using Sanderson Field altimeter setting, increase S-ILS 17 visibility to 1 mile.

MALSR



MISSED APPROACH: Climb to 1400, then continue climb to 5500 via OLM VORTAC R-176 to CETRA INT/OLM 15 DME and hold, continue climb-in-hold to 5500.

ATIS 135.725	SEATTLE APP CON 121.1 290.9	OLYMPIA TOWER★ 124.4 (CTAF) 0 254.25	GND CON 121.6	UNICOM 122.95
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Procedure NA for arrivals at HOOME via V27 northeast bound.

RADAR or DME REQUIRED

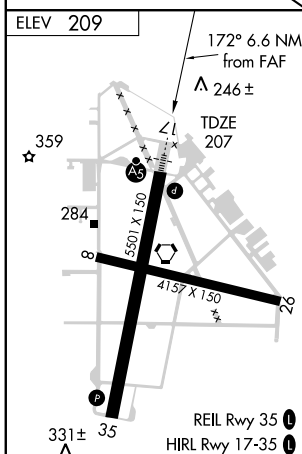
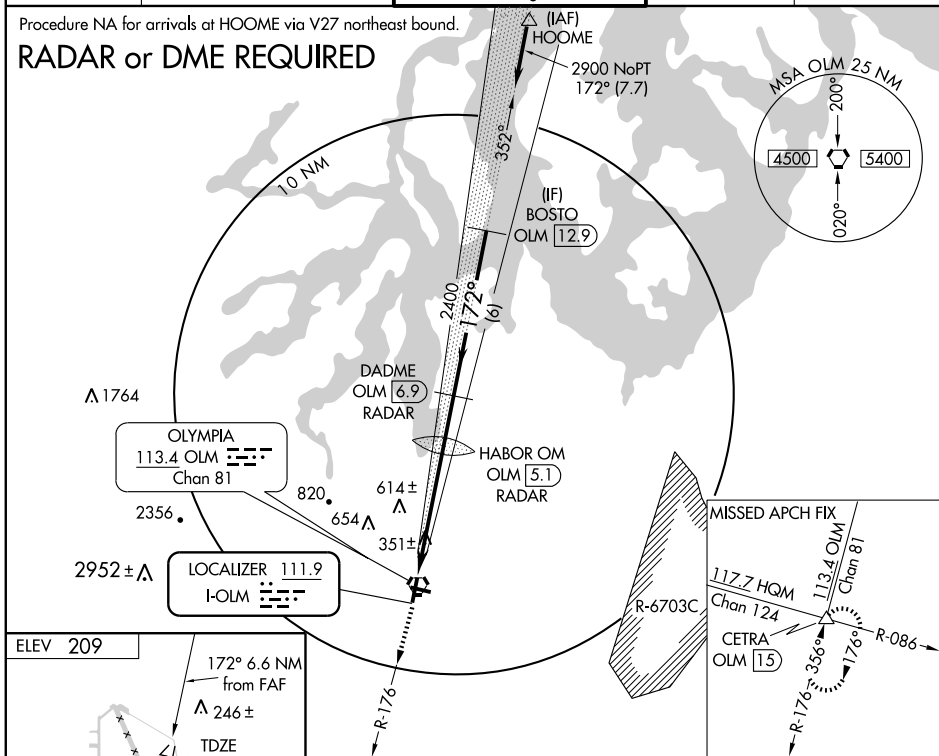


Diagram illustrating the proposed shipping lane from the harbor to the BOSTON OLM. Key distances and bearings are marked:

- Harbor OM OLM RADAR to 2400 depth: 4.8 NM
- 2400 depth to BOSTON OLM RADAR: 1.8 NM
- Total distance from Harbor OM OLM RADAR to BOSTON OLM RADAR: 6 NM
- Bearing from Harbor OM OLM RADAR to BOSTON OLM RADAR: 172°
- Depth at BOSTON OLM RADAR: 2900
- Note: GS 3.00° TCH 54

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RNAV (GPS) RWY 35

OLYMPIA RGNL (OLM)

APP CRS 352°	Rwy Idg 5501
TDZE 208	
Apt Elev 209	

⚠ When local altimeter setting not received, use Sanderson Field altimeter setting and increase all MDAs 60 feet; increase visibility LNAV Cats C/D ¼ mile and circling Cat D ¼ mile.
DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.

MISSED APPROACH: Climb to 4000 direct BOSTO and hold, continue climb-in-hold to 4000.

ATIS
135.725

SEATTLE APP CON
121.1 290.9

OLYMPIA TOWER★
124.4 (CTAF) 0 254.25

GND CON
121.6

UNICOM
122.95

△ 1764

• 2356

△ 2952±

820 • 614±
654 △
OLYMPIA OLM
4000 to CETRA
176° (15)

(FAF) CORER

1087± △

1683± △

MISSED APCH FIX



(IAF) RINDS △

4000 NoPT
086° (7)

(IF/IAF) CETRA

4000 NoPT
268° (7.1)

(IAF) TONNO

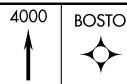
MSA RW 35 25 NM

5600

2252 •

2725 •

• 2487



RW35

≤ 3.04°
TCH 50

CORER

357°

177°

5 NM
Holding Pattern

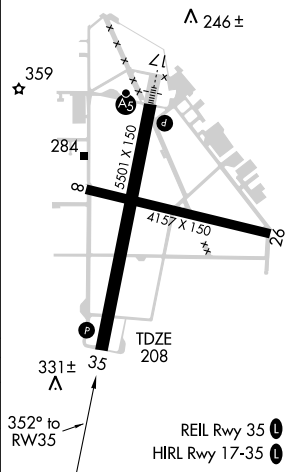
4000

4.5 NM

9.9 NM

CATEGORY	A	B	C	D
LNAV MDA	760-1	552 (600-1)	760-1½ 552 (600-1½)	760-1¾ 552 (600-1¾)
CIRCLING	760-1	551 (600-1)	820-1¾ 611 (700-1¾)	860-2 651 (700-2)

ELEV 209



REIL Rwy 35
HIRL Rwy 17-35

AL-645 (FAA)

VORTAC OLM 113.4 Chan 81	APP CRS 171°	Rwy Idg TDZE Apt Elev	N/A N/A 209
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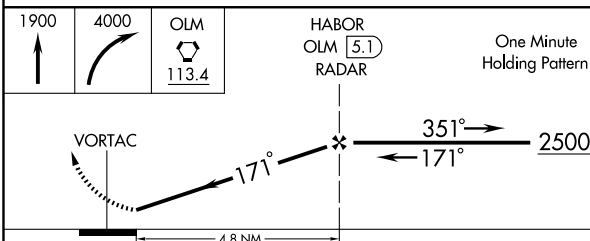
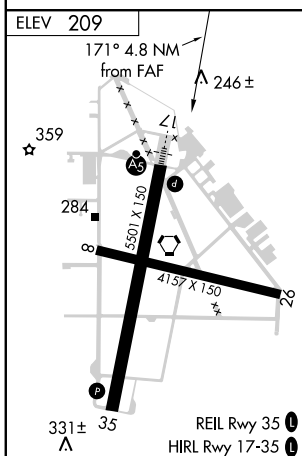
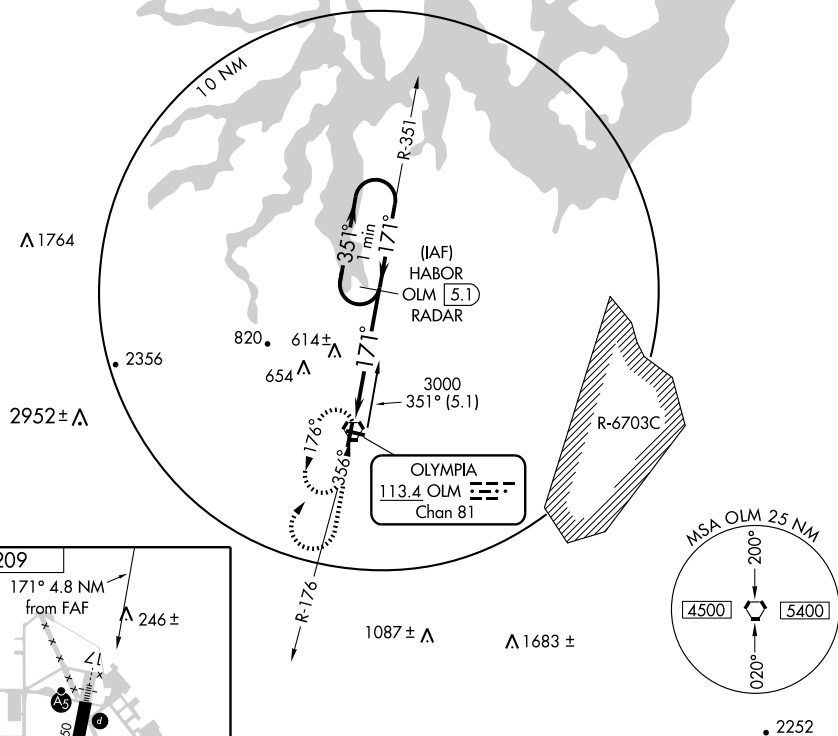
VOR-A
OLYMPIA RGNL (OLM)

T	When local altimeter setting not received, use Sanderson
A	Field altimeter setting and increase all MDA 60 feet. DME or RADAR required.

MISSED APPROACH: Climb to 1900 then climbing right turn to 4000 direct OLM VORTAC and hold, continue climb-in-hold to 4000.

ATIS 135.725	SEATTLE APP CON 121.1 290.9	OLYMPIA TOWER★ 124.4 (CTAF) 0 254.25	GND CON 121.6	UNICOM 122.95
------------------------	---------------------------------------	--	-------------------------	-------------------------

DME or RADAR REQUIRED



FAF to MAP 4.8 NM						CATEGORY	A	B	C	D
Knots	60	90	120	150	180	CIRCLING	880-1 671 (700-1)		880-2 671 (700-2)	880-2½ 671 (700-2½)
Min:Sec	4:48	3:12	2:24	1:55	1:36					

NW-1. 17 DEC 2009 to 14 JAN 2010

VORTAC OLM	APP CRS	Rwy Idg	5501
113.4	356°	TDZE	208
Chan 81		Apt Elev	209

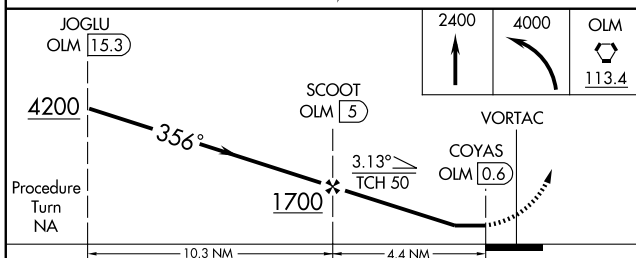
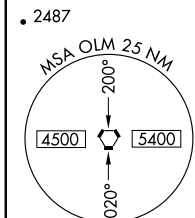
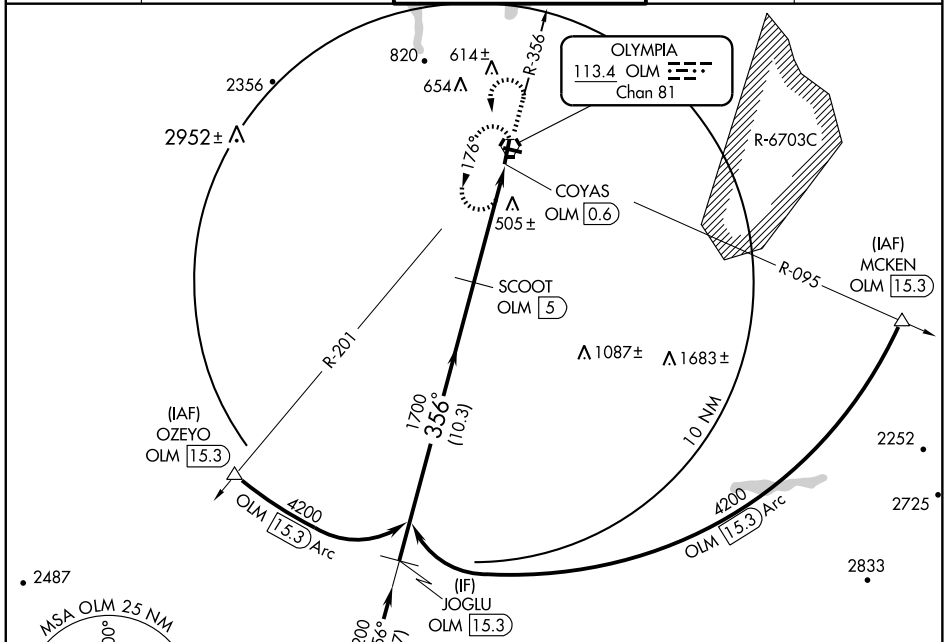
VOR/DME RWY 35

OLYMPIA RGNL (OLM)

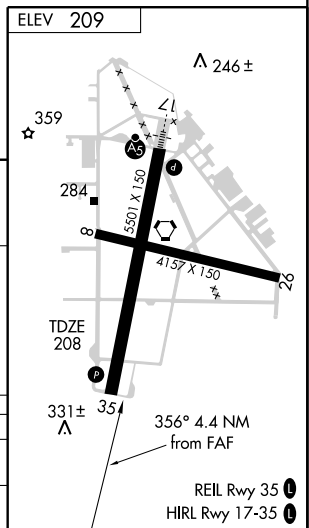
▼ When local altimeter setting not received, use Sanderson Field altimeter setting and increase all MDAs 60 feet; increase visibility S-35 Cats C/D ¼ mile and circling Cat D ¼ mile. Visibility reduction by helicopters NA.

MISSED APPROACH: Climb to 2400, then climbing left turn to 4000 direct OLM VORTAC and hold, continue climb-in-hold to 4000.

ATIS 135.725	SEATTLE APP CON 121.1 290.9	OLYMPIA TOWER★ 124.4 (CTAF) 254.25	GND CON 121.6	UNICOM 122.95
------------------------	---------------------------------------	--	-------------------------	-------------------------



CATEGORY	A	B	C	D
S-35	760-1	552 (600-1)	760-1½ 552 (600-1½)	760-1¾ 552 (600-1¾)
CIRCLING	760-1	551 (600-1)	820-1¾ 611 (700-1¾)	860-2 651 (700-2)



YELM TWO DEPARTURE

SL-645 (FAA)

OLYMPIA RGNL (OLM)
OLYMPIA, WASHINGTON

ASOS 135.725

GND CON

121.6

OLYMPIA TOWER ★

124.4 (CTAF) 254.25

SEATTLE DEP CON

121.1 290.9

TATOOSH


112.2 TOU 

Chan 59

N48°17.99'-W124°37.62'

L-1, H-1

PAINE


110.6 PAE 

Chan 43

N47°55.19'-W122°16.66'

L-1, H-1

SEATTLE

116.8 SEA 

Chan 115

N47°26.12'-W122°18.58'

L-1, H-1


TAKE-OFF MINIMUMS

Rwy 8, 26: NA- ATC

Rwy 17: Rwy 17, 300-2 or standard with minimum
climb of 706' per NM to 600.

Rwy 35: Standard

OLYMPIA


113.4 OLM 

Chan 81

N46°58.30'-W122°54.11'

L-1, H-1

McCHORD

109.6 TCM 

Chan 33

N47°08.86'-W122°28.50'

L-1

HOQUIAM


117.7 HQM 

Chan 124

N46°56.82'-W124°08.96'

L-1, H-1

NEWBERG


117.4 UBG 

Chan 121

N45°21.19'-W122°58.69'

L-1, H-1

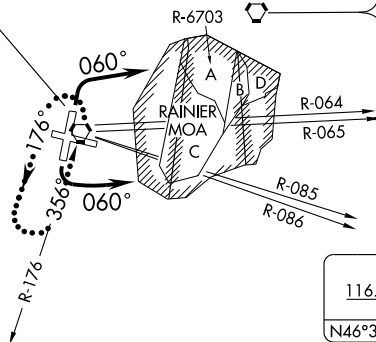
BATTLE GROUND

116.6 BTG 

Chan 113

N45°44.87'-W122°35.49'

L-1, H-1



NOTE: RADAR required.

NOTE: Chart not to scale.

TAKE-OFF OBSTACLE NOTES

RWY 17: Multiple trees beginning 1005' from DER, 24' left of centerline, up to 100' AGL/490' MSL.

Multiple trees beginning 752' from DER, 3' right of centerline, up to 100' AGL/370' MSL.

RWY 35: Multiple trees beginning 2176' from DER, 198 feet left of centerline up to 100' AGL/313' MSL.

Multiple trees and FLDLT on HGR beginning 657' from DER, 621' right of centerline, up to 100' AGL/ 315' MSL.



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 17: Turn left. Thence....

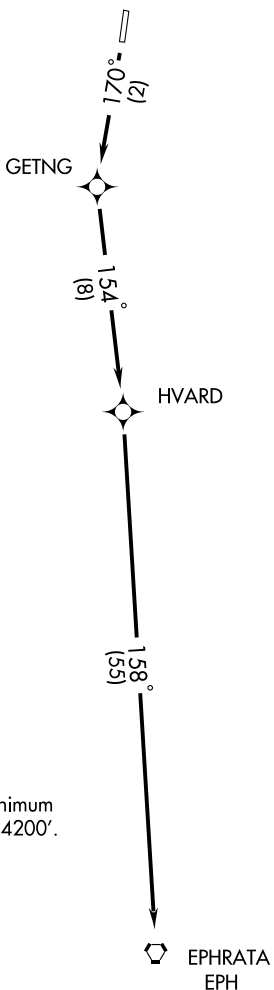
TAKE-OFF RUNWAY 35: Turn right. Thence....

...Climb via heading 060°, maintain 2000. Expect radar vectors on course and filed altitude within five minutes after departure.

LOST COMMUNICATIONS: If no contact with ATC within 6 NM of OLM VORTAC, or 2 minutes after departure for non-DME aircraft, turn left direct OLM VORTAC, continue climb in OLM VORTAC holding pattern to cross OLM VORTAC at or above R-086 CW R-064 4000 feet; R-065 CW R-085 7300 feet, continue climb via assigned route.

GETNG ONE DEPARTURE (RNAV) (OBSTACLE)

SEATTLE CENTER
126.1 291.6
SEATTLE RADIO
122.2



NOTE: 2200-2 or standard with a minimum climb of 300 Feet per Mile to 4200'.

NOTE: 1. GPS Required.
2. RNAV 1

NOTE: Chart not to scale

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 17: Climb to 4200 via 170° course to GETNG WP, 154° course to HVARD WP, and 158° course to EPH VORTAC. Thence proceed on course.

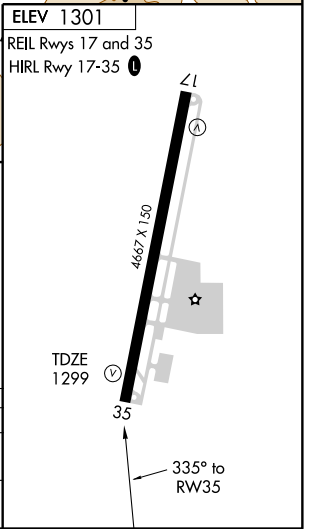
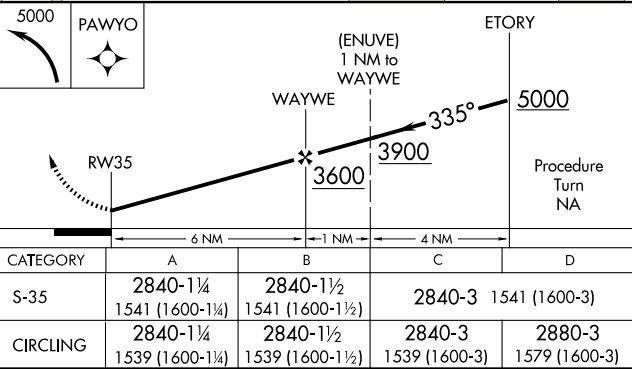
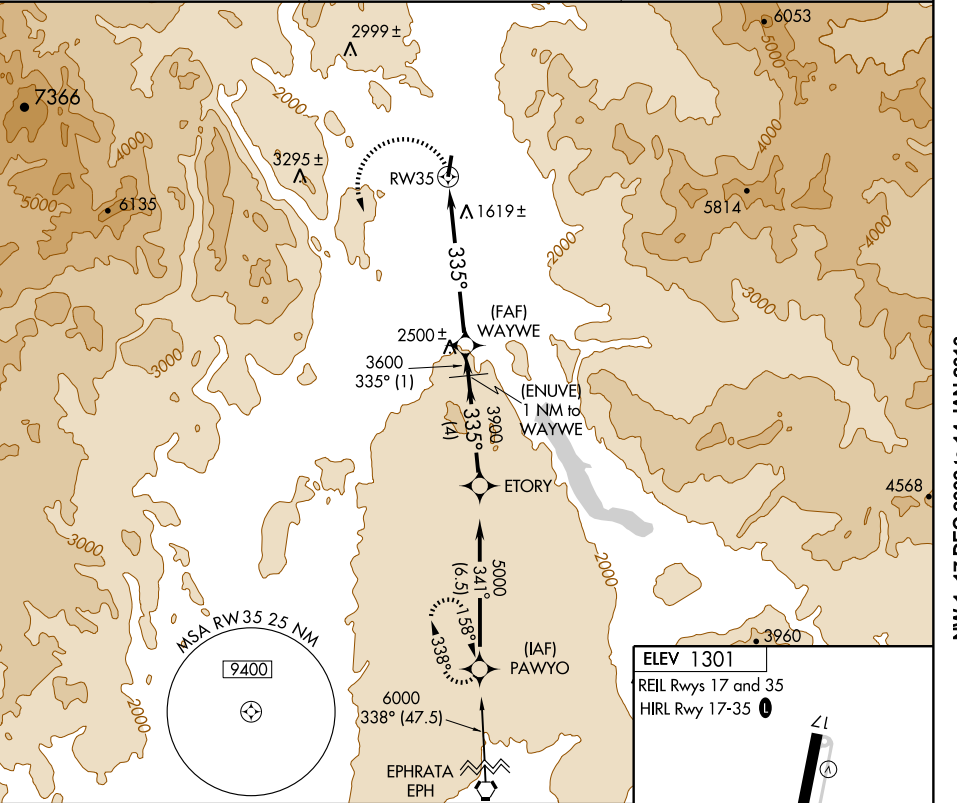
TAKE-OFF RUNWAY 35: NA

▼

▲ NA

MISSED APPROACH: Climbing left turn to 5000 direct PAWYO WP and hold.

ASOS 118.325	SEATTLE CENTER 126.1 291.6	UNICOM 122.8 (CTAF) 0
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AIRPORT DIAGRAM

AL-474 (FAA)

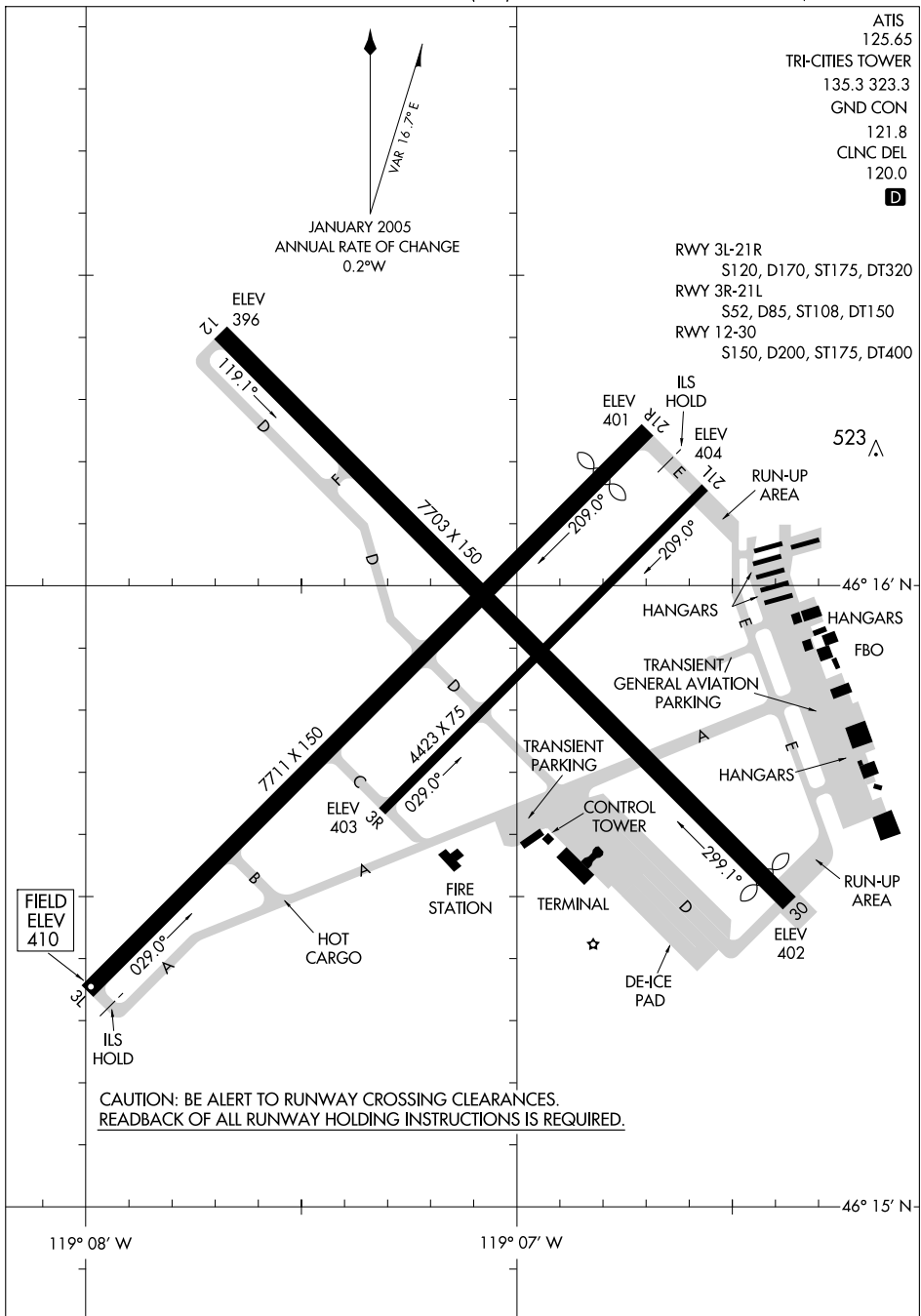
PASCO/TRI-CITIES (PSC)
PASCO, WASHINGTON

ATIS
125.65
 TRI-CITIES TOWER
135.3 323.3
 GND CON
121.8
 CLNC DEL
120.0



JANUARY 2005
 ANNUAL RATE OF CHANGE
 0.2°W

RWY 3L-21R
S120, D170, ST175, DT320
 RWY 3R-21L
S52, D85, ST108, DT150
 RWY 12-30
S150, D200, ST175, DT400



NW-1, 17 DEC 2009 to 14 JAN 2010

LOC I-PSC <u>108.7</u>	APP CRS 206°	Rwy Idg 7111 TDZE 404 Apt Elev 410
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ILS or LOC RWY 21R

PASCO/ TRI-CITIES (PSC)

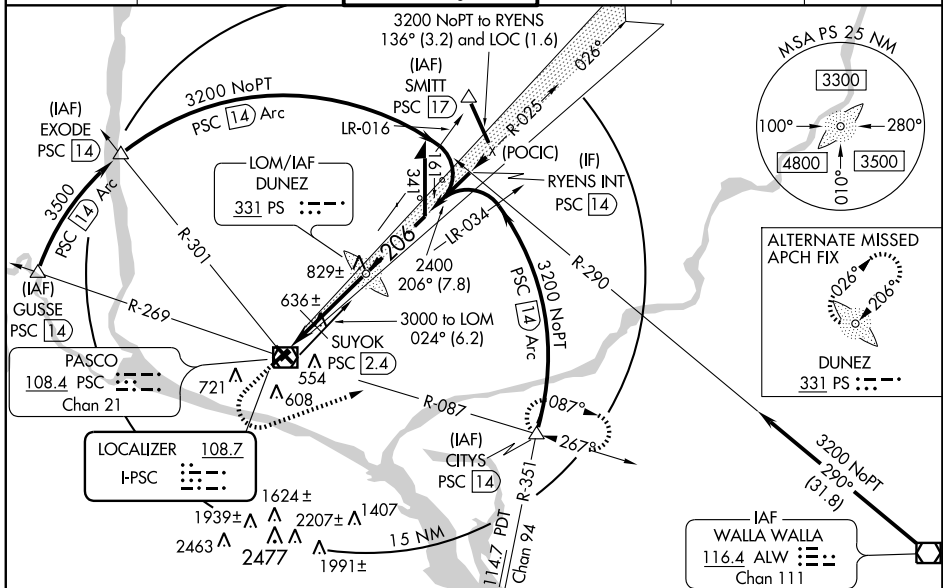
- V** If local altimeter setting not received, use Hermiston altimeter setting and increase all DAs/MDAs 100 feet.
- A** DME from PSC VOR/DME. Simultaneous reception of I-PSC and PSC VOR/DME when DME required.
- **RVR 1800 authorized with the use of FD or AP or HUD to DA.**
- Circling to Rwy 03R NA at night.**

MALSR

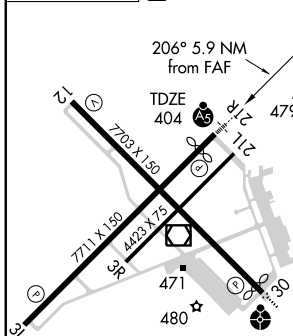


MISSED APPROACH: Climb to 1200 then climbing left turn to 3200 via heading 050° and PSC VOR/DME R-087 to CITYS INT/ PSC 14 DME and hold.

ATIS★ 125.65	CHINOOK APP CON★ 128.75 377.2	TRI-CITIES TOWER★ 135.3 (CTAF) 0 323.3	GND CON 121.8	CLNC DEL 120.0	UNICOM 122.95
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ELEV 410	D
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REIL Rwy 3L and 12
MIRL Rwy 12-30 **L**
HIRL Rwy 3L-21R **L**

FAF to MAP 5.9 NM

Knots	60	90	120	150	180
Min:Sec	5:54	3:56	2:57	2:22	1:58

SUYOK FIX MINIMUMS

CATEGORY	A	B	C	D
S-ILS 21R	**604/24 200 (200-½)			
S-LOC 21R	1080/24 676 (700-½)	1080-1½ 676 (700-1½)	1080-1¾ 676 (700-1¾)	1080-1¾ 676 (700-1¾)
CIRCLING	1080-1 670 (700-1)	1080-2 670 (700-2)	1080-2¼ 670 (700-2¼)	1080-2¼ 670 (700-2¼)

SUYOK FIX MINIMUMS

CATEGORY	A	B	C	D
S-LOC 21R	900/24 496 (500-½)	900/40 496 (500-¾)	900/50 496 (500-1)	900/50 496 (500-1)
CIRCLING	920-1 510 (600-1)	920-1½ 510 (600-1½)	1040-2 630 (700-2)	1040-2 630 (700-2)

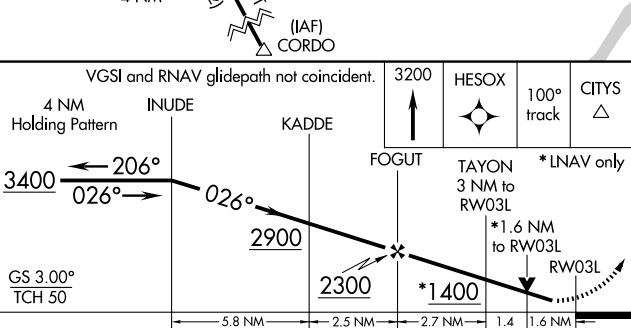
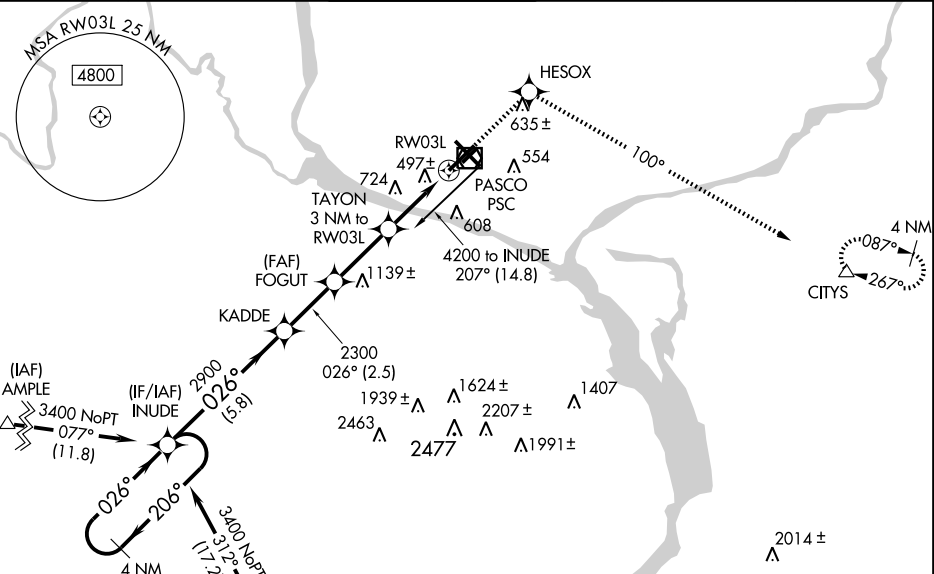
WAAS CH 40206 W03A	APP CRS 026°	Rwy Idg TDZE Apt Elev	7111 410 410
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RNAV (GPS) RWY 3L
PASCO/TRI-CITIES (PSC)

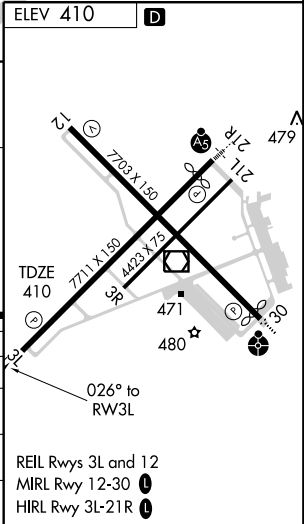
When local altimeter setting not received, use Hermiston altimeter setting and increase all DAs/MDAs 100 feet and all visibilities ¼ mile.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F).
VDP and Baro-VNAV NA when using Hermiston altimeter setting.
Circling to Rwy 3R NA at night. Visibility reduction by helicopters NA.
DME/DME RNP: 0.3 NA.

MISSED APPROACH: Climb to 3200
direct HESOX and via 100° track to
CITYS and hold.

ATIS ★ 125.65	CHINOOK APP CON★ 128.75 377.2	TRI-CITIES TOWER★ 135.3 (CTAF) 0 323.3	GND CON 121.8	CLNC DEL 120.0	UNICOM 122.95
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CATEGORY	A	B	C	D
LPV DA	660-1 250 (300-1)			
LNAV/VNAV DA	829-1½ 419 (500-1½)			
LNAV MDA	960-1 550 (600-1)	960-1½ 550 (600-1½)	960-1¾ 550 (600-1¾)	960-2 550 (600-2)
CIRCLING	960-1 550 (600-1)	960-1½ 550 (600-1½)	960-1¾ 550 (600-1¾)	960-2 550 (600-2)



⚠

For inoperative MALS, increase LPV all Cats visibility to RVR 5000 and LNAV Cat D visibility to RVR 6000.

⚠

If local altimeter setting not received, use Hermiston altimeter setting and increase all DAs/MDAs 100 feet.

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP-0.3 NA. VDP and Baro-VNAV NA when using Hermiston altimeter setting.

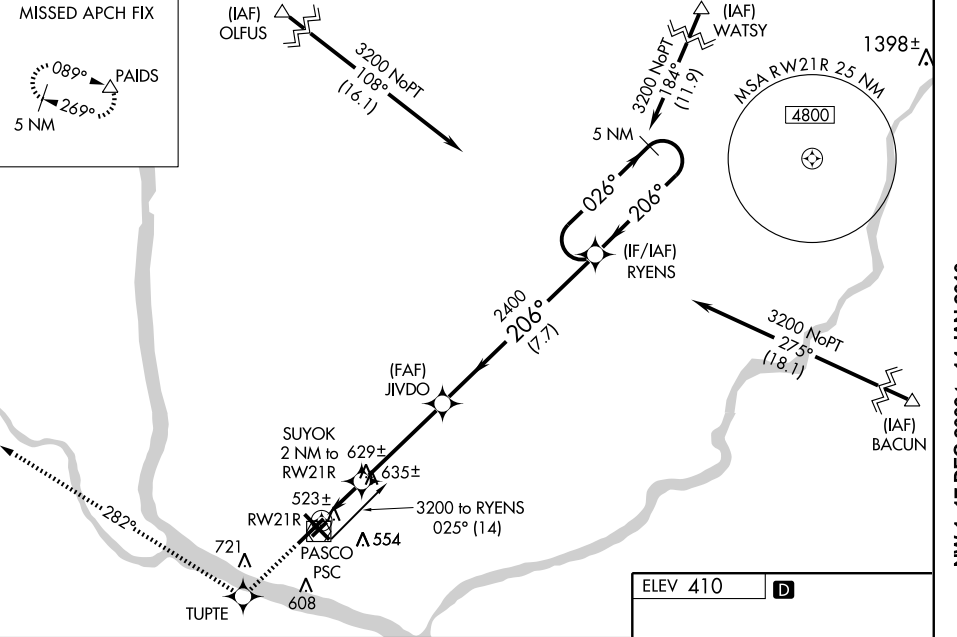
MALS

⬆

A5

MISSED APPROACH: Climb to 5200 direct TUPTE and via 282° track to PAIDS and hold, continue climb-in-hold to 5200.

ATIS ★ 125.65	CHINOOK APP CON★ 128.75 377.2	TRI-CITIES TOWER★ 135.3 (CTAF) 0 323.3	GND CON 121.8	CLNC DEL 120.0	UNICOM 122.95
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ELEV 410

D

5200

TUPTE

282° track

PAIDS

%1180 when using Hermiston altimeter setting.

*LNAV only

RYENS

5 NM Holding Pattern

*1 NM to RW21R

SUYOK 2 NM to RW21R

1080*%

2400

026°

206°

3200

GS 3.00° TCH 55

1 NM

1 NM

4 NM

7.7 NM

CATEGORY	A	B	C	D
LPV DA	680/24 276 (300-½)			
LNAV/VNAV DA	797/40 393 (400-¾)			
LNAV MDA	780/24 376 (400-½)		780/50 376 (400-1)	
CIRCLING	880-1 470 (500-1)		900-1½ 490 (500-1½)	1040-2 630 (700-2)

206° to RW21R

TDZE 404

7703 X 150

7711 X 150

471

480

479

21R

21L

30

REIL Rwy 3L and 12

MIRL Rwy 12-30

HIRL Rwy 3L-21R

NW-1, 17 DEC 2009 to 14 JAN 2010

⚠ When local altimeter setting not received, use Hermiston altimeter setting and increase all DAs/MDAs 100 feet and all visibilities ½ mile.

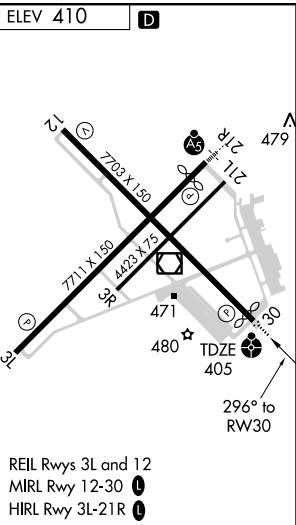
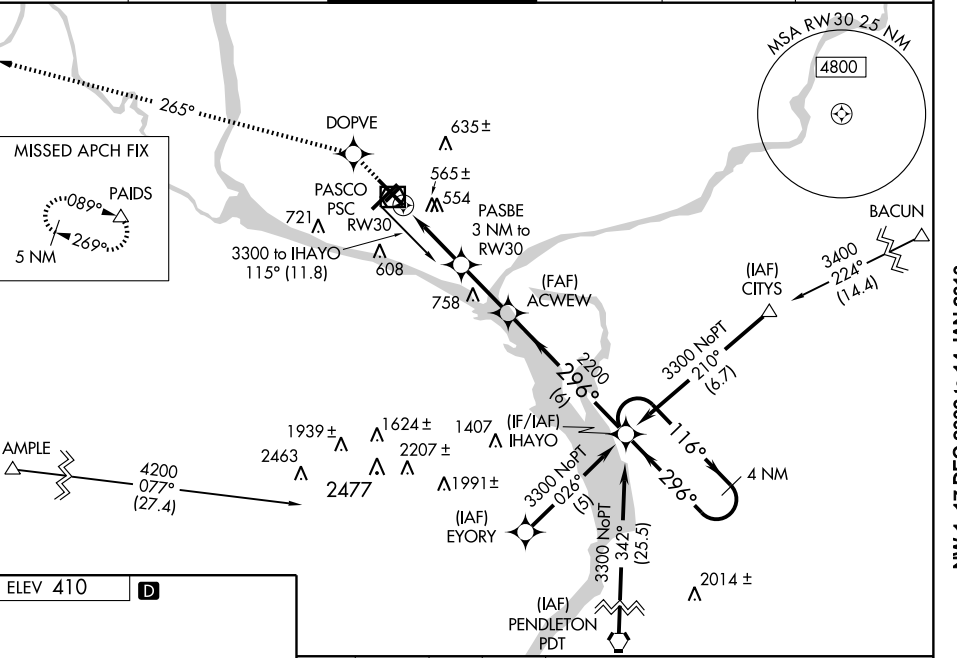
⚠ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F).

VDP and Baro-VNAV NA when using Hermiston altimeter setting. Inoperative table does not apply. Circling to Rwy 3R NA at night. Visibility reduction by helicopters NA. DME/DME RNP-0.3 NA.

ODALS

MISSED APPROACH: Climb to 5200 direct DOPVE and via 265° track to PAIDS and hold, continue climb-in-hold to 5200.

ATIS ★ 125.65	CHINOOK APP CON ★ 128.75 377.2	TRI-CITIES TOWER ★ 135.3 (CTAF) 0 323.3	GND CON 121.8	CLNC DEL 120.0	UNICOM 122.95
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5200

↑

DOPVE

265° track

PAIDS

△

ACWEW

IHAYO

4 NM Holding Pattern

* LNAV only

PASBE

3 NM to RW30

* 1.3 NM to RW30

RW30

1400*

296°

116°

3300

2200

GS 3.00°

TCH 54

1.3 NM

1.7

2.4 NM

6 NM

CATEGORY	A		B	C	D
LPV DA	777-1¼		372 (400-1¼)		
LNAV/VNAV DA	913-1¾		508 (600-1¾)		
LNAV MDA	880-1	475 (500-1)	880-1¼ 475 (500-1¼)	880-1½ 475 (500-1½)	
CIRCLING	920-1	510 (600-1)	920-1½ 510 (600-1½)	1040-2 630 (700-2)	

NW-1. 17 DEC 2009 to 14 JAN 2010

TRI-CITIES FOUR DEPARTURE

SL-474 (FAA)

PASCO/TRI-CITIES (PSC)
PASCO, WASHINGTON

ATIS 125.65
CLNC DEL
120.0
GND CON
121.8
TRI-CITIES TOWER
135.3 (CTAF) 323.3
CHINOOK DEP CON
128.75 377.2

WENATCHEE
111.0 EAT :--
Chan 47
N47°23.98'-W120°12.65'
L-13

EPHRATA
112.6 EPH :--
Chan 73
N47°22.68'-W119°25.44'
L-13, H-1

SPOKANE
115.5 GEG :--
Chan 102
N47°33.90'-W117°37.61'
L-13, H-1

MOSES LAKE
115.0 MWH :--
Chan 97
N47°12.65'-W119°19.01'
L-13, H-1

ELLENSBURG
117.9 ELN :--
Chan 126
N47°01.46'-W120°27.51'
L-13, H-1

PULLMAN
109.0 PUW :--
Chan 27
N46°40.46'-W117°13.41'
L-13

YAKIMA
116.0 YKM :--
Chan 107
N46°34.22'-W120°26.68'
L-13, H-1

PASCO
108.4 PSC :--
Chan 21
N46°15.78'-W119°06.94'
L-13

NEZ PERCE
108.2 MQG :--
Chan 19
N46°22.89'-W116°52.17'
L-13

KLUCKITAT
112.3 LTJ :--
Chan 70
N45°42.81'-W121°06.05'
L-13, H-1

WALLA WALLA
116.4 ALW :--
Chan 111
N46°05.22'-W118°17.55'
L-13

PENDLETON
114.7 PDT :--
Chan 94
N45°41.91'-W118°56.32'
L-13, H-1

NOTE: SID will not be assigned when Control Tower is closed.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

Fly runway heading, or ATC assigned heading, for vector to assigned route/fix. Maintain 10,000' or assigned lower altitude. Expect clearance to filed altitude 5 minutes after departure.

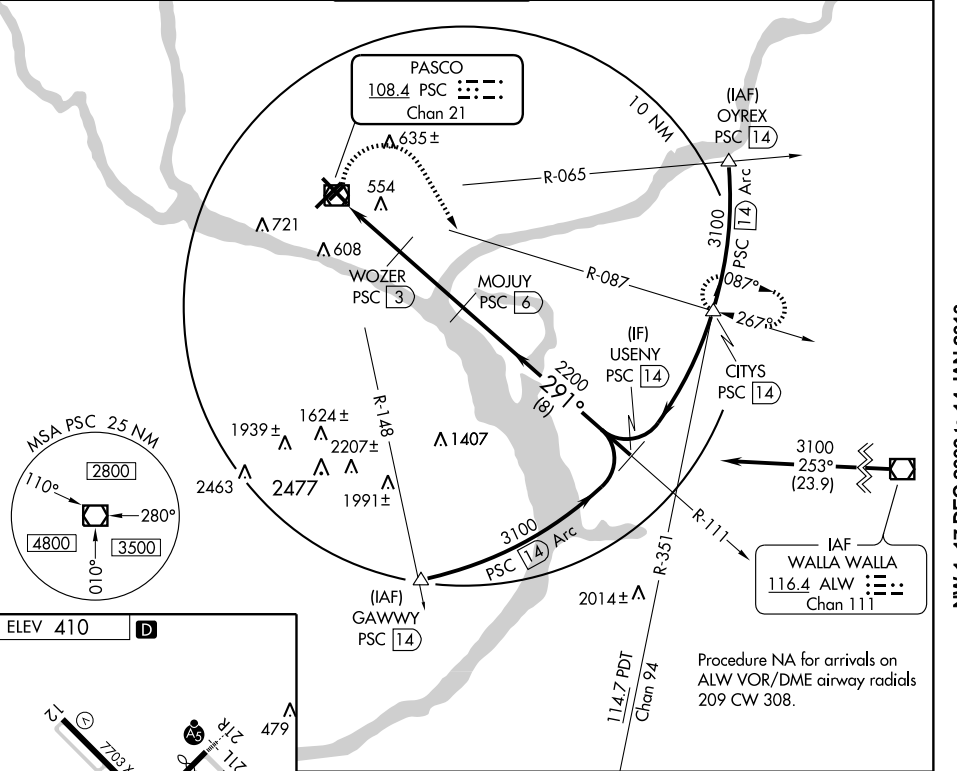
LOST COMMUNICATIONS: Climb runway heading to 3,000' then reverse course direct PSC VOR/DME to cross at or above MEA for route of flight.



⚠ Inoperative table does not apply to Cat C.
⚠ Visibility reduction by helicopters NA.
When local altimeter setting not received, use Hermiston altimeter setting and increase all MDA 100 feet, increase S-30 visibility Cat C ¼ mile, Cat D ½ mile and circling Cat D ¼ mile.

ODALS

MISSED APPROACH: Climbing right turn to 3200 via heading 130° and PSC R-087 to CITYS INT/PSC 14 DME and hold.

ATIS★ 125.65	CHINOOK APP CON★ 128.75 377.2	TRI-CITIES TOWER★ 135.3 (CTAF) 323.3	GND CON 121.8	CLNC DEL 120.0	UNICOM 122.95
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<div>3200</div> <div></div> <div>130°</div>	<div>PSC</div> <div>R-087</div> <div>108.4</div>	<div>CITYS</div> <div>△</div>	<div>USENY</div> <div>PSC</div> <div>14</div>	
		<div>WOZER</div> <div>PSC</div> <div>3</div>	<div>MOJUJ</div> <div>PSC</div> <div>6</div>	
<div></div>	<div>PSC</div> <div>0.4</div>	<div>PSC</div> <div>1.6</div>	<div>3100</div>	
	<div>1.1 NM</div>	<div>1.5 NM</div>	<div>3 NM</div>	
		<div>2.95°</div> <div>TCH 54</div>	<div>2200</div>	
		<div>1260</div>	<div>291°</div>	
			<div>8 NM</div>	
			<div>Procedure Turn NA</div>	
CATEGORY	A	B	C	D
S-30	820-3/4	415 (500-3/4)	820-1 1/4	415 (500-1 1/4)
CIRCLING	860-1	450 (500-1)	900-1 1/2	1040-2
			490 (500-1 1/2)	630 (700-2)

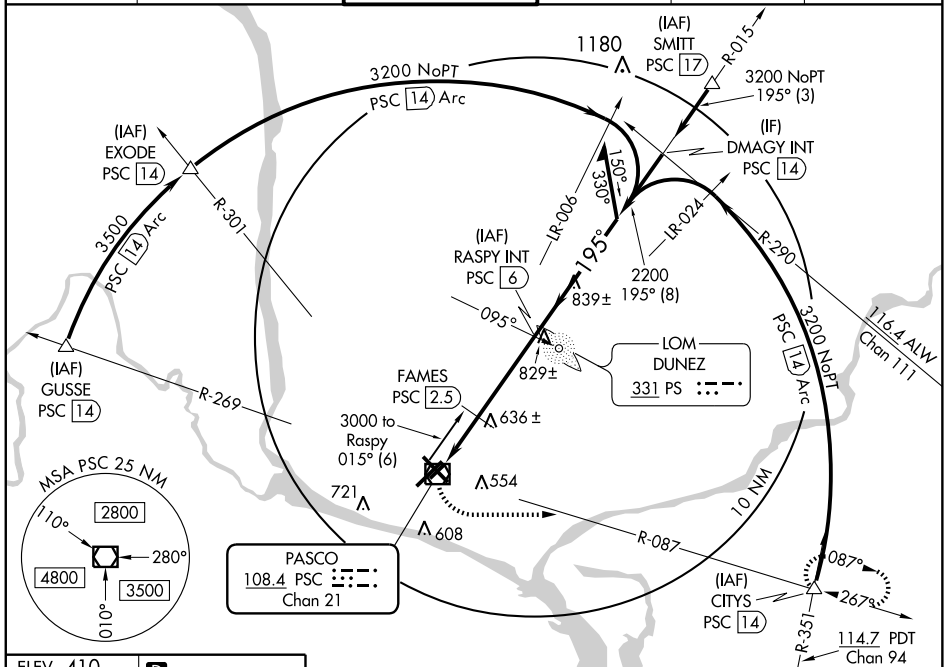
VOR/DME PSC	APP CRS	Rwy Idg	7111
108.4	195°	TDZE	404
Chan 21		Apt Elev	410

VOR RWY 21R

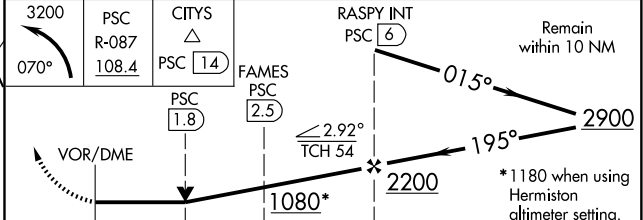
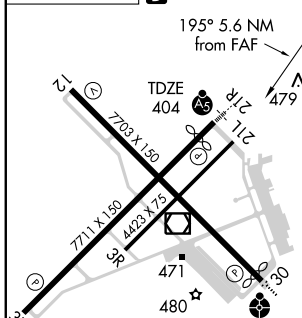
PASCO/ TRI-CITIES (PSC)

<p>▲ If local altimeter setting not received, use Hermiston altimeter setting and increase all MDAs 100 feet.</p> <p>▲ VDP NA when using Hermiston altimeter setting.</p> <p>ADF or DME required. Circling to Rwy 03R NA at night.</p>	<p>MALSR</p> 	<p>MISSED APPROACH: Climbing left turn to 3200 via heading 070° and PSC VOR/DME R-087 to CITYS INT/PSC 14 DME and hold.</p>
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ATIS★ 125.65	CHINOOK APP CON★ 128.75 377.2	TRI-CITIES TOWER★ 135.3 (CTAF) 323.3	GND CON 121.8	CLNC DEL 120.0	UNICOM 122.95
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ELEV 410 **D**




CATEGORY	A	B	C	D
S-21R	1080/24 676 (700-½)		1080-1½ 676 (700-½)	1080-1¾ 676 (700-¾)
CIRCLING	1080-1 670 (700-1)		1080-2 670 (700-2)	1080-2¼ 670 (700-2¼)
FAMES FIX MINIMUMS				
S-21R	900/24 496 (500-½)		900/40 496 (500-¾)	900/50 496 (500-1)
CIRCLING	920-1 510 (600-1)		920-1½ 510 (600-½)	1040-2 630 (700-2)

REIL Rwy 3L and 12

MIRL Rwy 12-30 **1**

HIRL Rwy 3L-21R **1**

ILS or LOC RWY 8
PORT ANGELES/ WILLIAM R. FAIRCHILD INTL (CLM)

<p>MALSR</p> 	<p>MISSED APPROACH: Climb to 1000 then climbing left turn to 5400 via heading 030° and CVV R-247 to JIGEB/CVV 12.1 DME and hold, continue climb-in-hold to 5400.</p>
--	---

[illegible]

083° 6.6 NM from FAF

32.5° X 50°

63.47° X 1.50°

TDZE 284

424±

355

GS 3.00° TCH 54

VGS and ILS glidepath not coincident.

4.4 NM

5.4 NM

6.6 NM

One Minute Holding Pattern

YUCSU TOU 29.6

HUTUK TOU 34

1000

5400

CVV R-247 117.2

JIGEB

CATEGORY A

S-ILS 8

S-LOC 8

CIRCLING

Knots

Min:Sec

RNAV (GPS) RWY 8

PORT ANGELES/ WILLIAM R. FAIRCHILD INTL (CLM)

WAAS CH 77703 W08A	APP CRS 082°	Rwy Idg TDZE Apt Elev 6347 284 291
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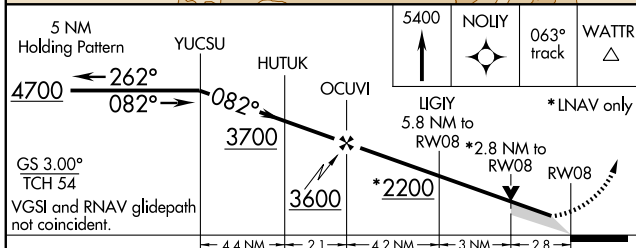
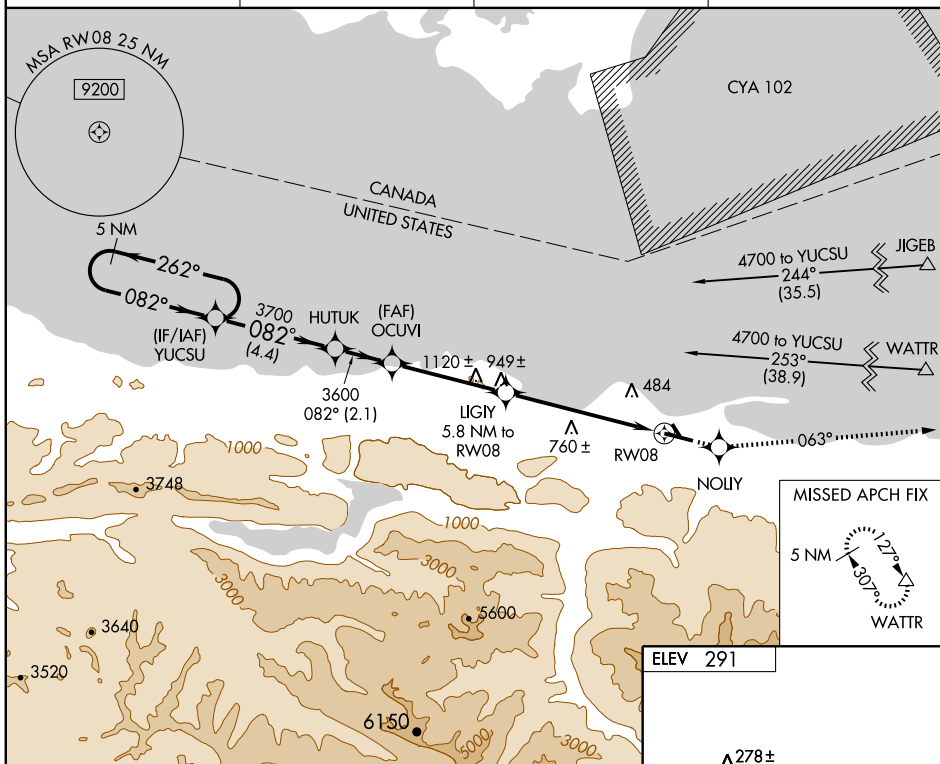
⚠ Circling NA south of Rwy 8-26. DME/DME RNP-0.3 NA.
⚠ If local altimeter setting not received, use Friday Harbor altimeter setting and increase all DAs/MDAs 100 feet. VDP NA when using Friday Harbor altimeter setting.

MALSR

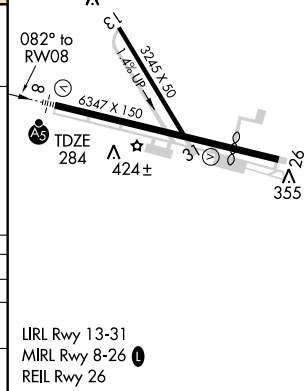


MISSED APPROACH: Climb to 5400 direct NOLLY and via 063° track to WATTR and hold, continue climb-in-hold to 5400.

ASOS 135.175	WHIDBEY APP CON* 118.2 285.65	CLNC DEL 124.15	UNICOM 122.975 (CTAF) 0
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CATEGORY	A	B	C	D
LPV DA	596-1/2 312 (400-1/2)			
RNAV MDA	1240-3/4 956 (1000-3/4)	1240-1 956 (1000-1)	1240-2 1/2 956 (1000-2 1/2)	
CIRCLING	1240-1 1/4 949 (1000-1 1/4)	1240-1 1/2 949 (1000-1 1/2)	1240-3 949 (1000-3)	



LIRL Rwy 13-31
MIRL Rwy 8-26
REIL Rwy 26

APP CRS	Rwy Idg	4993
263°	TDZE	282
	Apt Elev	291

RNAV (GPS) RWY 26

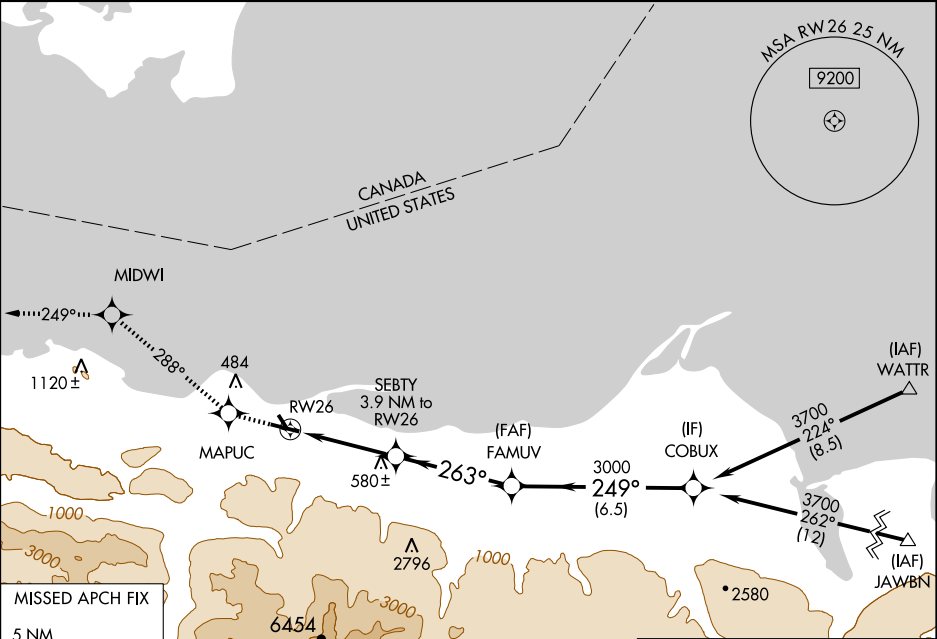
PORT ANGELES/ WILLIAM R. FAIRCHILD INTL (CLM)

⚠ Circling NA south of Rwy 8-26. DME/DME RNP- 0.3 NA.

⚠ Visibility reduction by helicopters NA. When local altimeter setting not received, use Friday Harbor altimeter setting; increase all MDA 100 feet and visibility Cats B/C/D ½ mile.

MISSED APPROACH: Climb to 5400 direct MAPUC and via track 288° to MIDWI and via track 249° to YUCSU and hold.

ASOS 135.175	WHIDBEY APP CON ★ 118.2 285.65	CLNC DEL 124.15	UNICOM 122.975 (CTAF) 1
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MISSED APCH FIX

5 NM

262°

082°

YUCSU

5400

MAPUC

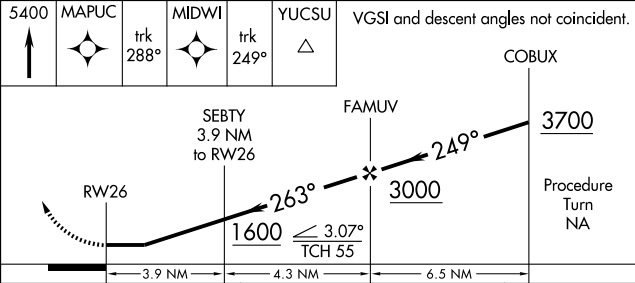
trk 288°

MIDWI

trk 249°

YUCSU

VGSI and descent angles not coincident.



CATEGORY	A	B	C	D
LNAV MDA	940-1	658 (700-1)	940-1¾ 658 (700-1¾)	940-2 658 (700-1)
CIRCLING	940-1	649 (700-1)	940-1¾ 649 (700-1¾)	940-2 649 (700-2)

ELEV 291

278±

22.5 X 50

1.42 X 50

6347 X 150

424±

263° to RW26

TDZE 282

355

LIRL Rwy 13-31

MIRL Rwy 8-26 **1**

REIL Rwy 26

WATTR FIVE DEPARTURE (OBSTACLE)

PORT ANGELES/ WILLIAM R. FAIRCHILD INTL (CLM)
SL-886 (FAA) PORT ANGELES, WASHINGTON

NAS WHIDBEY DEP CON
118.2 285.65
SEATTLE RADIO
122.6
CTAF 123.0



VICTORIA
113.7 YYJ
Chan 84
N48°43.62' - W123°29.06'
L-1, H-1

TAKE-OFF OBSTACLE NOTES

Rwy 13: Multiple trees and pole beginning 1299' from DER, 32' left of centerline, up to 100' AGL/520' MSL.

Sign 76' from DER, 230' left of centerline, 5' AGL/276' MSL.

Hangar 1550' from DER, 457' left of centerline, 49' AGL/320' MSL.

OL on airport beacon 2023' from DER, 829' left of centerline, 74' AGL/345' MSL.

Multiple trees and pole beginning 614' from DER, 11' right of centerline, up to 100' AGL/599' MSL.

Rwy 26: Multiple trees beginning 2940' from DER, 747' left of centerline, up to 95' AGL/378' MSL.

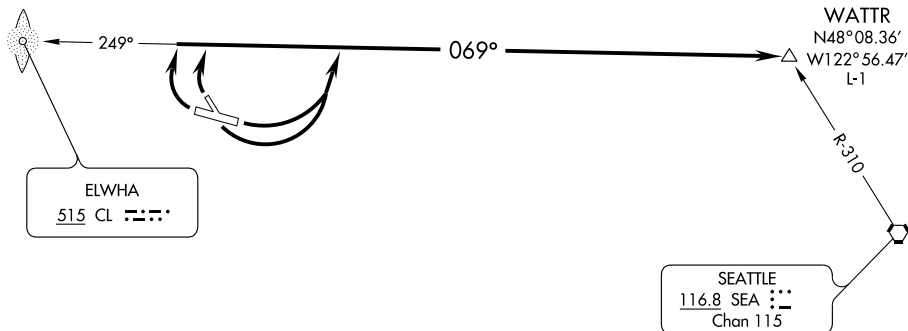
Rwy 31: Multiple trees beginning 470' from DER, 39' left of centerline, up to 71' AGL/298' MSL.

Multiple trees beginning 640' from DER, 112' right of centerline, up to 63' AGL/290' MSL.

Rwy 8: Multiple trees and poles beginning 130' from DER, 261' left of centerline, up to 124' AGL/415' MSL.

Multiple trees and poles beginning 923' from DER, 111' right of centerline, up to 232' AGL/479' MSL.

Hangar 212' from DER, 523' right of centerline, 19' AGL/310' MSL.



TAKE-OFF MINIMUMS

Rwys 26, 31: Standard.

Rwy 13: Standard with minimum climb of 454' per NM to 1100.

Rwy 8: 300-1.

NOTE: Chart not to scale.



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 8 and 13: Climbing left turn, thence....


TAKE-OFF RUNWAYS 26 and 31: Climbing right turn, thence....

....on 069° bearing from CL LOM to WATTR INT, maintain 5400.

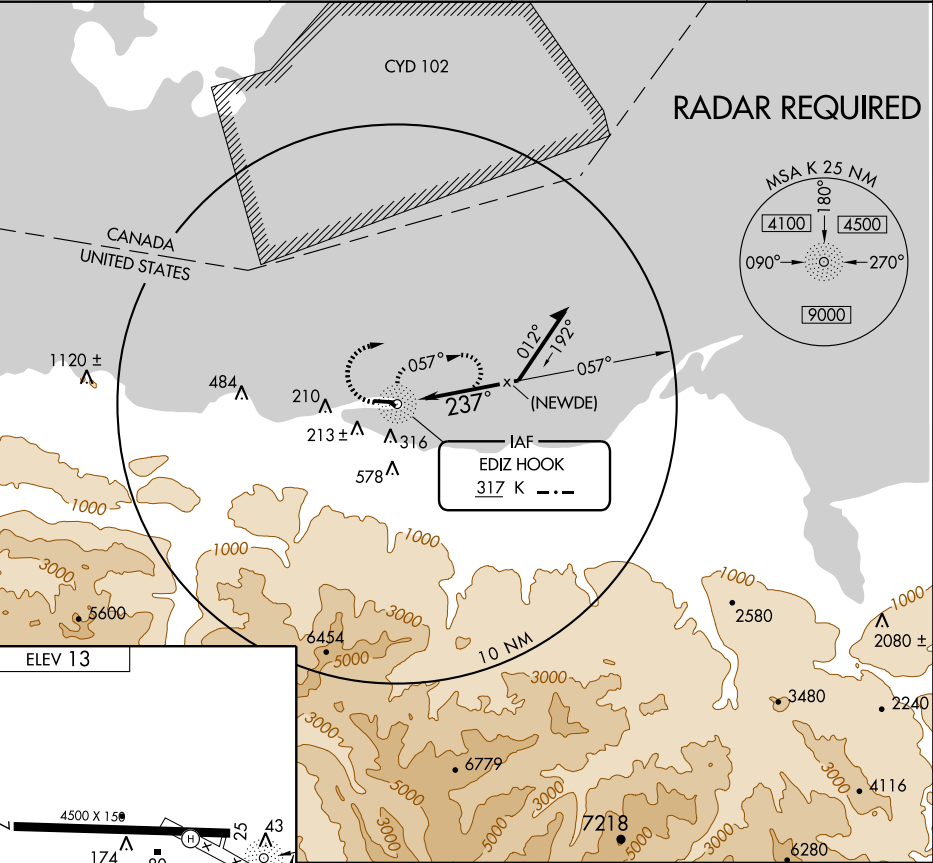
NDB K	APP CRS	Rwy Idg	N/A
<u>317</u>	237°	TDZE	N/A
		Apt Elev	13

COPTER NDB or GPS 237°

PORT ANGELES CGAS (NOW)

 NA	Prior permission required.	MISSED APPROACH: Climbing right turn to 1600 via bearing 057° from Ediz Hook NDB, then climbing left turn to 3000 direct Ediz Hook NDB and hold.
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WHIDBEY APP CON 118.2 285.65	PORT ANGELES AIR 127.7 345.0	CLNC DEL 124.15	UNICOM 122.975 (CTAF)
--	--	---------------------------	---------------------------------



80

237°
to NDB

1600
K 057°

3000
K 057°

317
K 057°

NDB

057°

(NEWDE)

1600

237°

4 NM

Remain within 5 NM

CATEGORY

A

B

C

D

H-237°

540-¾
527 (600-¾)

NA

MIRL Rwy 7-25

RNAV (GPS) RWY 5

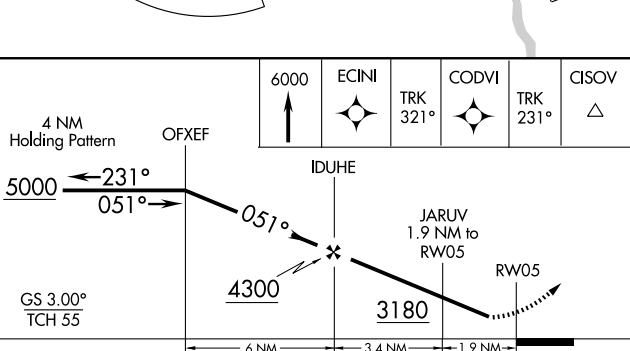
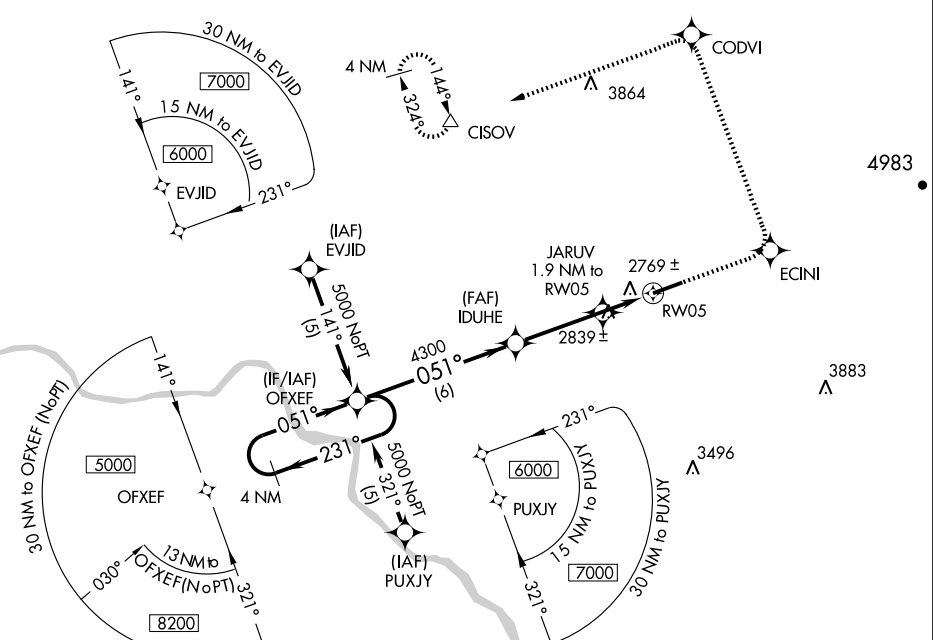
PULLMAN/MOSCOW RGNL (PUW)

WAAS Chan 50129 W05A	APP CRS 051°	Rwy Idg TDZE 2540 Apt Elev 2556
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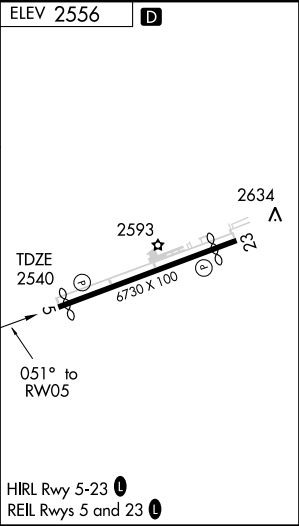
▼ DME/DME RNP-0.3 NA.
▲ Baro VNAV NA below -20°C (-4°F).

MISSED APPROACH: Climb to 6000 direct ECINI, and via 321° track to CODVI and via 231° track to CISOV and hold.

ASOS 135.675	SEATTLE CENTER 123.95 282.3	UNICOM 122.8 (CTAF) 0
------------------------	---------------------------------------	---------------------------------



CATEGORY	A	B	C	D
LPV DA	2981-1½ 441 (500-1½)			
LNAV/ VNAV DA	3177-2¼ 637 (700-2¼)			
LNAV MDA	3100-1 560 (600-1)	3100-1½ 560 (600-1½)	3100-1¾ 560 (600-1¾)	
CIRCLING	3220-2¼ 664 (700-2¼)			



NW-1, 17 DEC 2009 to 14 JAN 2010

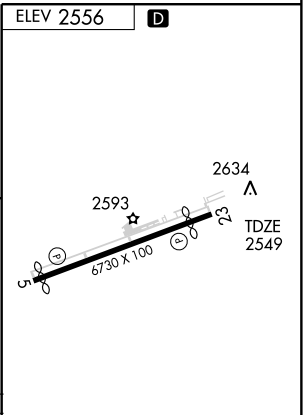
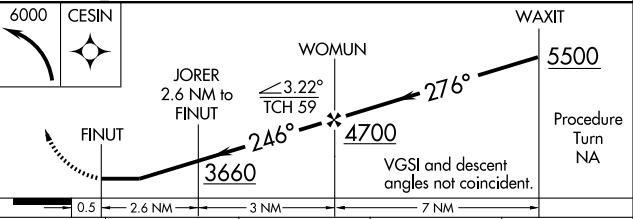
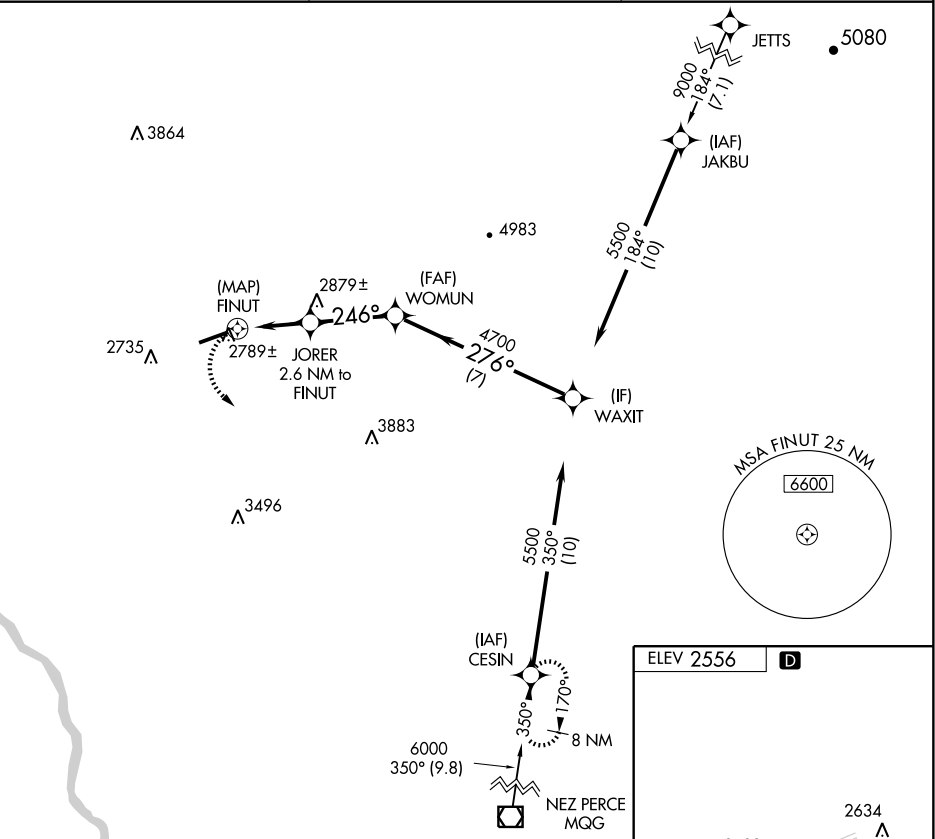
APP CRS	Rwy Idg	5240
246°	TDZE	2549
	Apt Elev	2556

RNAV (GPS) RWY 23

PULLMAN/MOSCOW RGNL (PUW)

DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.	MISSED APPROACH: Climbing left turn to 6000 direct CESIN and hold.
--	--

ASOS 135.675	SEATTLE CENTER 123.95 282.3	UNICOM 122.8 (CTAF)
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CATEGORY	A	B	C	D
LNAV MDA	3180-1	631 (700-1)	3180-1 ³ / ₄ 631 (700-1 ³ / ₄)	3180-2 631 (700-2)
CIRCLING	3220-1	664 (700-1)	3220-1 ³ / ₄ 664 (700-1 ³ / ₄)	3220-2 664 (700-2)

HIRL Rwy 5-23
REIL Rws 5 and 23

VOR RWY 5

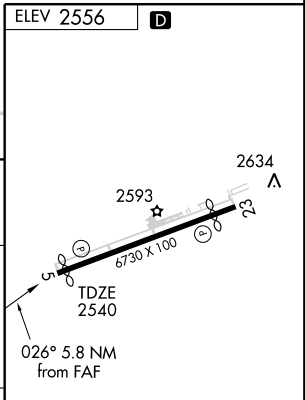
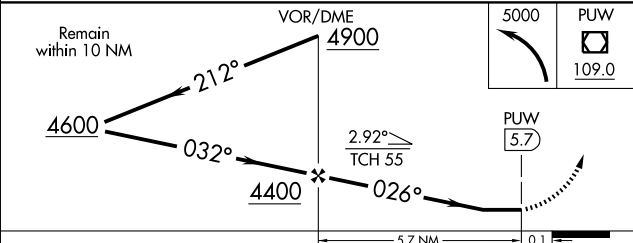
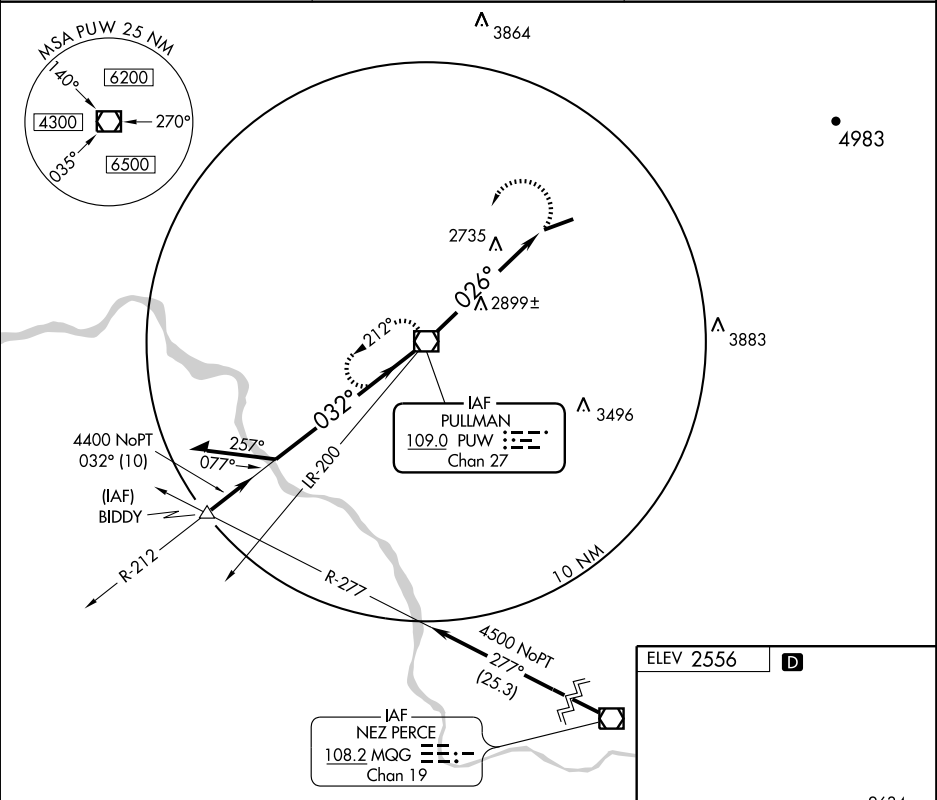
PULLMAN/MOSCOW RGNL (PUW)

VOR/DME PUW	APP CRS	Rwy Idg	6200
109.0	026°	TDZE	2540
Chan 27		Apt Elev	2556

When VGSI inoperative, circling Rwy 5 NA at night.
Visibility reduction by helicopters NA.

MISSED APPROACH: Climbing left turn to 5000 direct PUW
VOR/DME and hold.

ASOS 135.675	SEATTLE CENTER 123.95 282.3	UNICOM 122.8 (CTAF) 0
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CATEGORY	A	B	C	D	HIRL Rwy 5-23 0 REIL Rws 5 and 23 0 FAF to MAP 5.7 NM					
S-5	3120-1	580 (600-1)	3120-1½ 580 (600-1½)	3120-1¾ 580 (600-1¾)	Knots	60	90	120	150	180
CIRCLING	3220-1	664 (700-1)	3220-1¾ 664 (700-1¾)	3220-2 664 (700-2)	Min:Sec	5:42	3:48	2:51	2:17	1:54

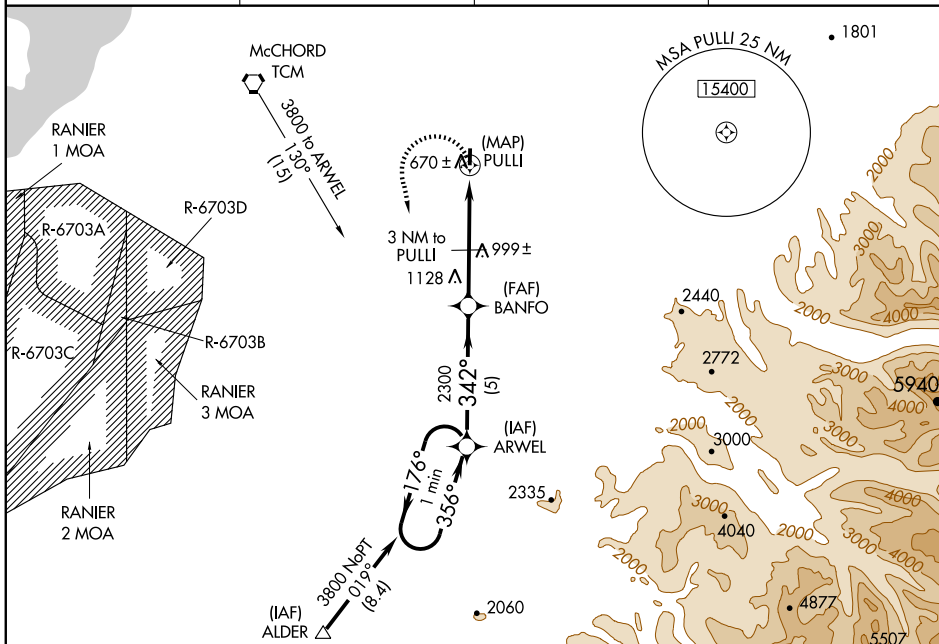
APP CRS
342°Rwy Idg **3650**
TDZE **538**
Apt Elev **538**

GPS RWY 34

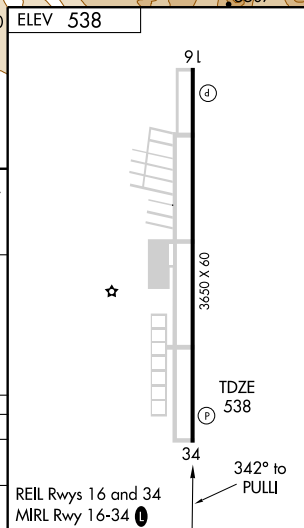
PUYALLUP/PIERCE COUNTY-THUN FIELD (PLU)



NA

MISSED APPROACH: Climbing left turn to 3800 direct ARWEL
WP and hold.AWOS-3
128.575SEATTLE APP CON
126.5 391.9CLNC DEL
121.85UNICOM
122.7 (CTAF) 0

One Minute Holding Pattern				
	ARWEL		BANFO	
	3800		2300	
	176°		342°	
	356°		1600	
	5 NM		2 NM	
	3 NM		3 NM	
CATEGORY	A	B	C	D
S-34	1200-1	662 (700-1)	NA	
CIRCLING	1200-1	662 (700-1)	NA	



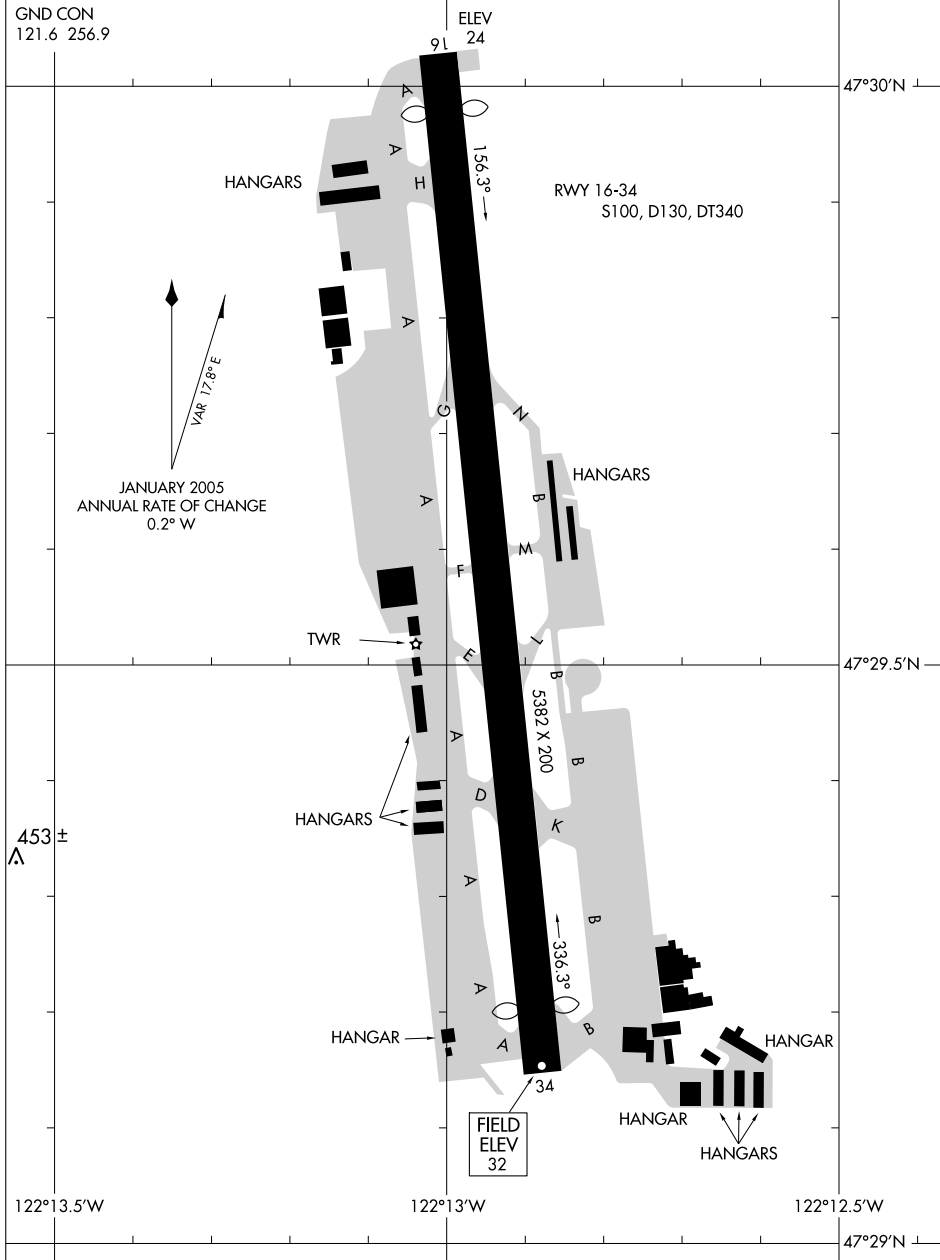
AIRPORT DIAGRAM

AL-5396 (FAA)

RENTON MUNI (RNT)
RENTON, WASHINGTON

ATIS
126.95
RENTON TOWER ★
124.7 256.9
GND CON
121.6 256.9

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

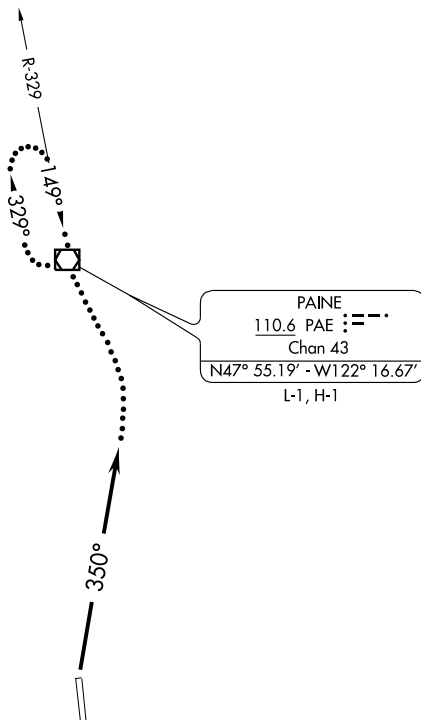


BELLEVUE TWO DEPARTURE

SL-5396 (FAA)

RENTON MUNI (RNT)
RENTON, WASHINGTON

ATIS 126.95
GND CON
121.6 256.9
RENTON TOWER ★
124.7 (CTAF) 256.9
SEATTLE DEP CON
119.2 284.7



NOTE: RADAR required.

TAKE-OFF MINIMUMS

Rwy 16: NA- ATC.

Rwy 34: Standard with minimum climb of 315' per NM to 800.

TAKE-OFF OBSTACLE NOTES

Rwy 34: Trees and terrain beginning 1.6 NM from DER, 104' left of centerline, up to 100' AGL/485' MSL, wood piling, trees and terrain beginning 75' from DER, 7' right of centerline, up to 100' AGL/426' MSL.

NOTE: Chart not to scale.



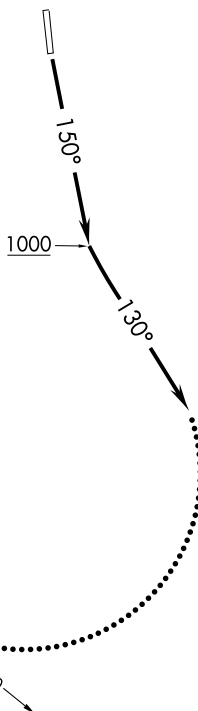
DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 34: Climb heading 350°, maintain 3000, expect radar vectors, expect filed altitude within 5 minutes after departure.

LOST COMMUNICATIONS: If no contact with Seattle Departure Control within 3 minutes after departure, climbing left turn direct PAE VOR/DME, continue climb-in PAE VOR/DME holding pattern to cross PAE VOR/DME at or above MEA/MCA for direction of flight before proceeding on course.

ATIS 126.95
GND CON
121.6 256.9
RENTON TOWER ★
124.7 (CTAF) 256.9
SEATTLE DEP CON
119.2 284.7

SEATTLE
116.8 SEA
Chan 115
N47°26.12' - W122°18.58'
L-1, H-1



NOTE: RADAR required.

TAKE-OFF MINIMUMS

Rwy 16: Standard with a minimum climb of 405' per NM to 800.
Rwy 34: NA- ATC.

TAKE-OFF OBSTACLE NOTES

Rwy 16: Trees, towers, lights and blast shield beginning 186' from DER, 4' left of centerline, up to 100' AGL/574' MSL. Trees, lights and signs beginning 40' from DER, 54' right of centerline, up to 100' AGL/297' MSL.

NOTE: Chart not to scale.



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 16: Climb heading 150° to 1000, then climbing left turn heading 130°, expect radar vectors, maintain 3000, expect filed altitude within 5 minutes after departure.

LOST COMMUNICATIONS: If no contact with Seattle Departure Control within 3 minutes after departure, climbing right turn direct SEA VORTAC, continue climb-in SEA VORTAC holding pattern to cross SEA VORTAC at or above MEA/MCA for direction of flight before proceeding on course.

APP CRS	Rwy Idg	5082
157°	TDZE	25
	Apt Elev	32

RNAV (GPS) Y RWY 16

RENTON MUNI (R.NT)

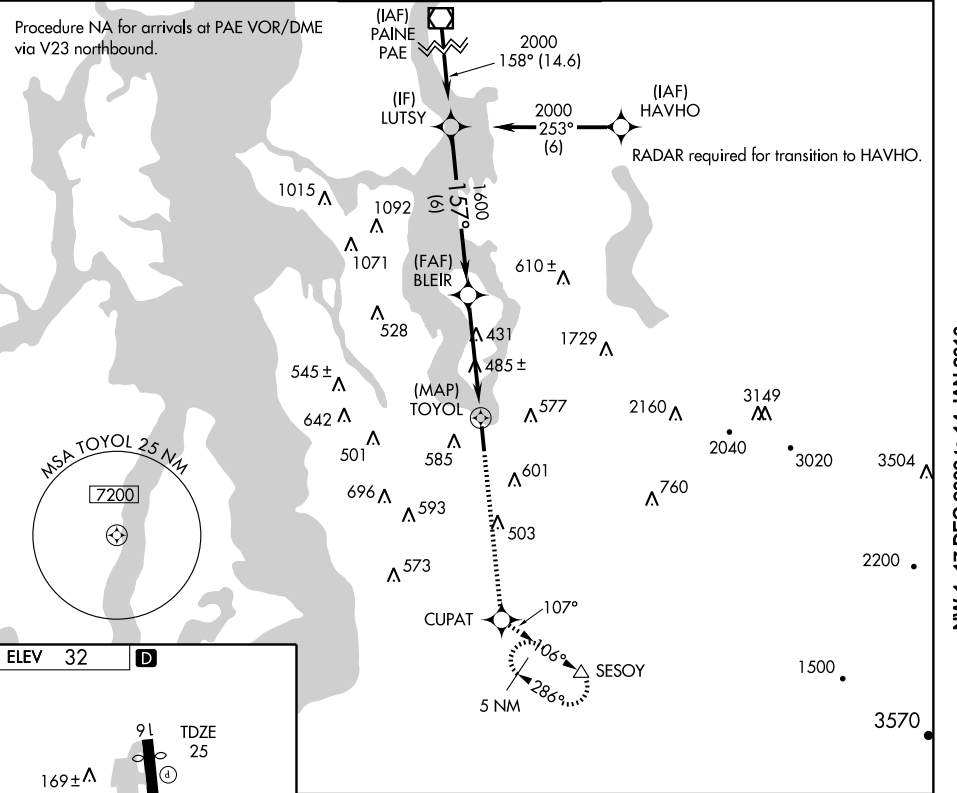
▼

▲

Circling NA W of Rwy 16-34. DME/DME RNP-0.3 NA.
Visibility reduction by helicopters NA. When local altimeter setting not received, use Seattle-Tacoma Intl altimeter setting.

MISSED APPROACH: Climb to 5000 direct CUPAT and via track 107° to SESOY and hold, continue climb-in-hold to 5000.

ATIS 126.95	SEATTLE APP CON 119.2 284.7	RENTON TOWER★ 124.7 (CTAF) 256.9	GND CON 121.6 256.9	UNICOM 122.95
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<div>5000</div> <div>CUPAT</div> <div>trk 107°</div> <div>SESOY</div>				
<div>Procedure Turn NA</div> <div>LUTSY</div> <div>2000</div> <div>157°</div> <div>BLEIR</div> <div>1600</div> <div>3.04°</div> <div>TCH 50</div> <div>1.8 NM to TOYOL</div> <div>TOYOL</div>				
<div>6 NM</div> <div>2.6 NM</div> <div>1.8</div> <div>0.3</div>				
CATEGORY	A		B	
LNAV MDA	760-1		735 (800-1)	
CIRCLING	880-1		880-1½	
	848 (900-1)		848 (900-1½)	
	760-2		735 (800-2)	
	920-2¾		920-3	
888 (900-2¾)		888 (900-3)		

NW-1, 17 DEC 2009 to 14 JAN 2010

▼

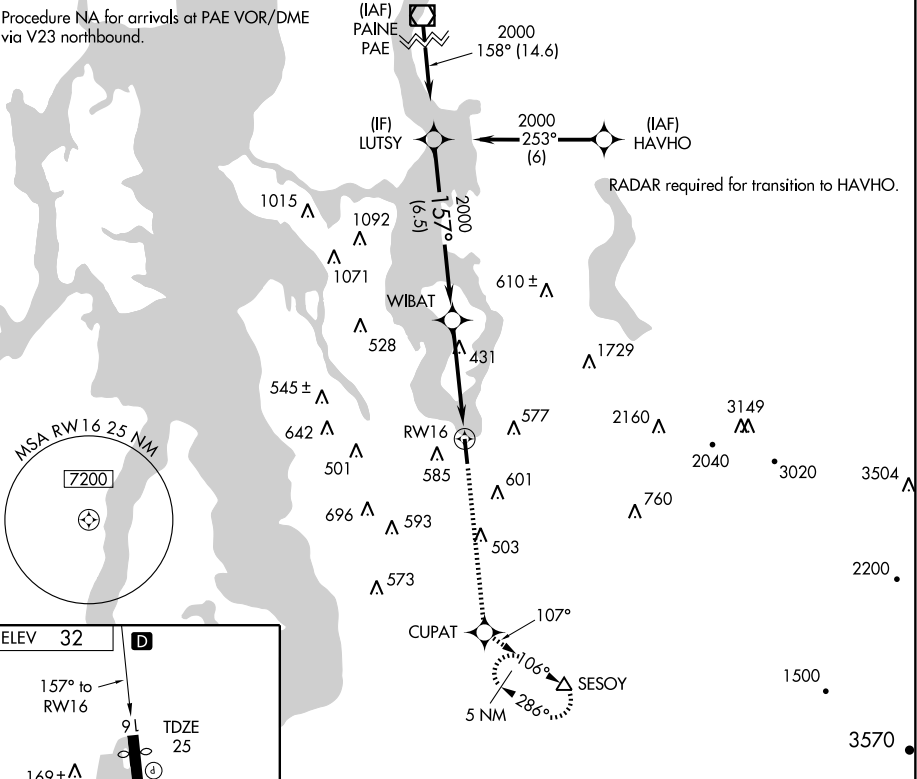
⚠

Circling NA W of Rwy 16-34. DME/DME RNP- 0.3 NA. When local altimeter setting not received, use Seattle-Tacoma Intl altimeter setting. Circling requires descent on GS to CMDA.

MISSED APPROACH: Climb to 5000 direct CUPAT and via track 107° to SESOY and hold, continue climb-in-hold to 5000.

ATIS 126.95	SEATTLE APP CON 119.2 284.7	RENTON TOWER★ 124.7 (CTAF) 256.9	GND CON 121.6 256.9	UNICOM 122.95
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Procedure NA for arrivals at PAE VOR/DME via V23 northbound.



VGSI and RNAV glidepath not coincident.			
<div><div>5000</div><div>CUPAT</div><div>trk 107°</div><div>SESOY</div></div>			
<div><div>Procedure Turn NA</div><div>LUTSY</div><div>WIBAT</div><div>2000</div><div>2000</div><div>157°</div><div>2000</div><div>6.5 NM</div><div>4.3 NM</div><div>RW16</div></div>			
GS 4.20° TCH 50			
CATEGORY	A	B	D
LPV DA	542-1¼	517 (600-1¼)	NA
CIRCLING	880-1¼	848 (900-1¼)	NA

MIRL Rwy 16-34
REIL Rwy 16 and 34

NW-1, 17 DEC 2009 to 14 JAN 2010

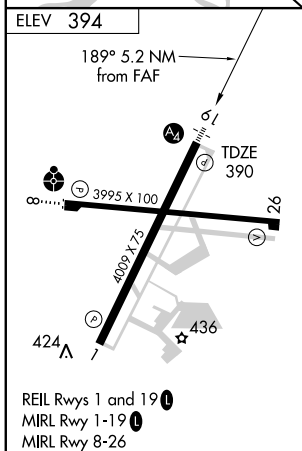
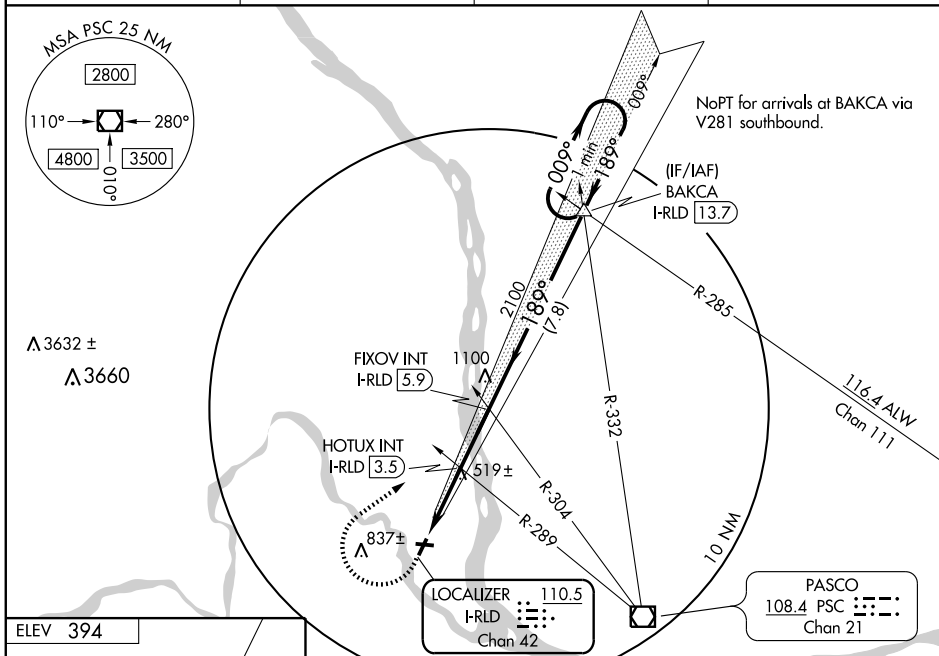
LOC/DME I-RLD 110.5 Chan 42	APP CRS 189°	Rwy Idg TDZE Apt Elev	4009 390 394
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LOC RWY 19

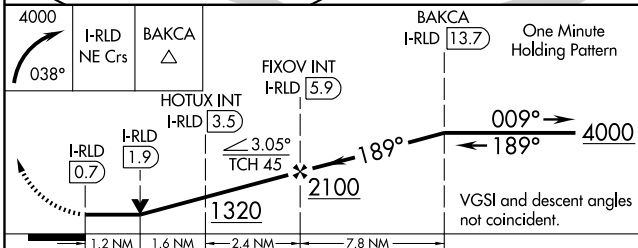
RICHLAND (RLD)

<p>NA</p> <p>Visibility reduction by helicopters NA. VDP NA when using Pasco altimeter setting. When local altimeter setting not received, use Pasco altimeter setting and increase all MDA 40 feet. Inoperative table does not apply to S-19 all Cats, and HOTUX fix minimums S-19 Cat C.</p>	<p>MALS</p> <p></p>	<p>MISSED APPROACH: Climbing right turn to 4000 via heading 038° and I-RLD NE course to BAKCA INT/I-RLD 13.7 DME and hold.</p>
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AWOS-3 132.675	CHINOOK APP CON ★ 128.75 377.2	CLNC DEL 122.4	UNICOM 122.7 (CTAF)
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FAF to MAP 5.2 NM	Knots	60	90	120	150	180
Min:Sec	5:12	3:28	2:36	2:05	1:44	



CATEGORY	A	B	C	D
S-19	1320-1¼ 930 (1000-1¼)		1320-2¾ 930 (1000-2¾)	1320-3 930 (1000-3)
CIRCLING	1320-1¼ 926 (1000-1¼)		1320-2¾ 926 (1000-2¾)	1320-3 926 (1000-3)
HOTUX FIX MINIMUMS				
S-19	800-¾ 410 (500-¾)		800-1¼ 410 (500-1¼)	1100-2¼ 710 (800-2¼)
CIRCLING	980-1 586 (600-1)	1000-1 606 (700-1)	1000-1¾ 606 (700-1¾)	1140-2½ 746 (800-2½)

APP CRS	Rwy Idg	4009
189°	TDZE	390
	Apt Elev	394

RNAV (GPS) RWY 19

RICHLAND (RLD)

T	DME/DME-RNP-0.3 NA.
A	Inoperative table does not apply to Cat. C.

MALS



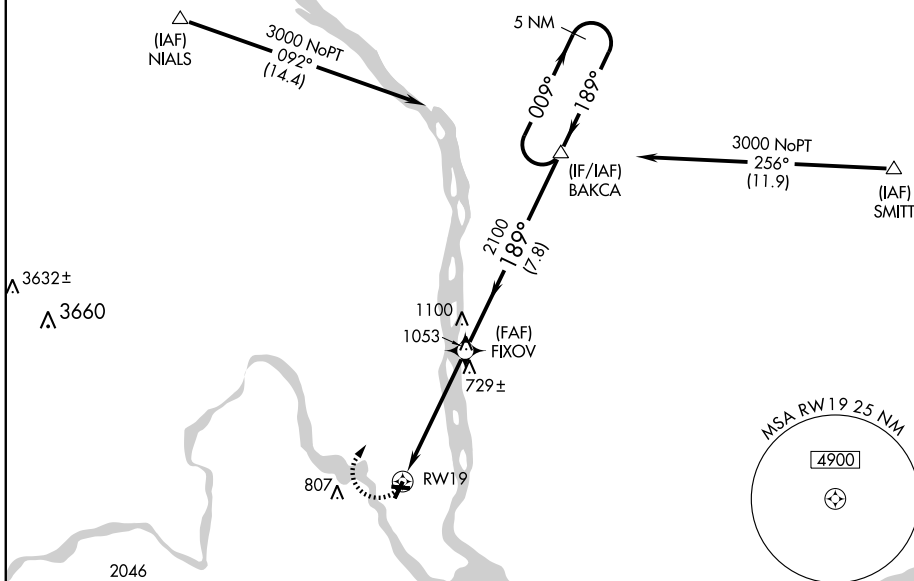
MISSED APPROACH: Climbing right turn to 3000 direct BAKCA and hold.

AWOS-3
132,675

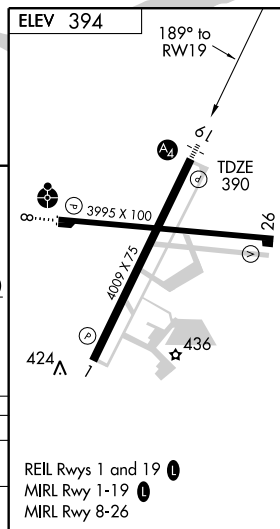
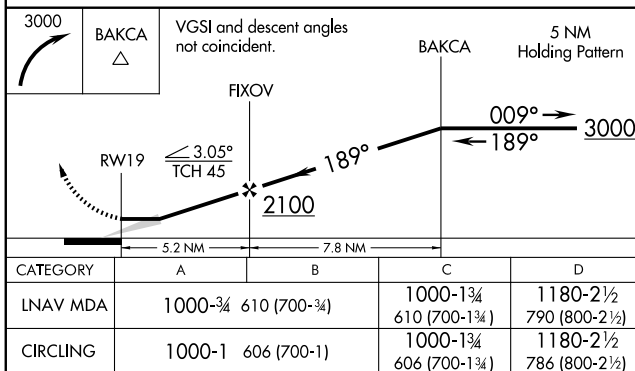
CHINOOK APP CON★
128.75 377.2

CLNC DEL
122.4UNICOM
122.7 (CTAF) **L**

Procedure NA for arrivals at NIALS via V187 northwest bound, and arrivals at SMITT via V204 northbound.



NW-1. 17 DEC 2009 to 14 JAN 2010



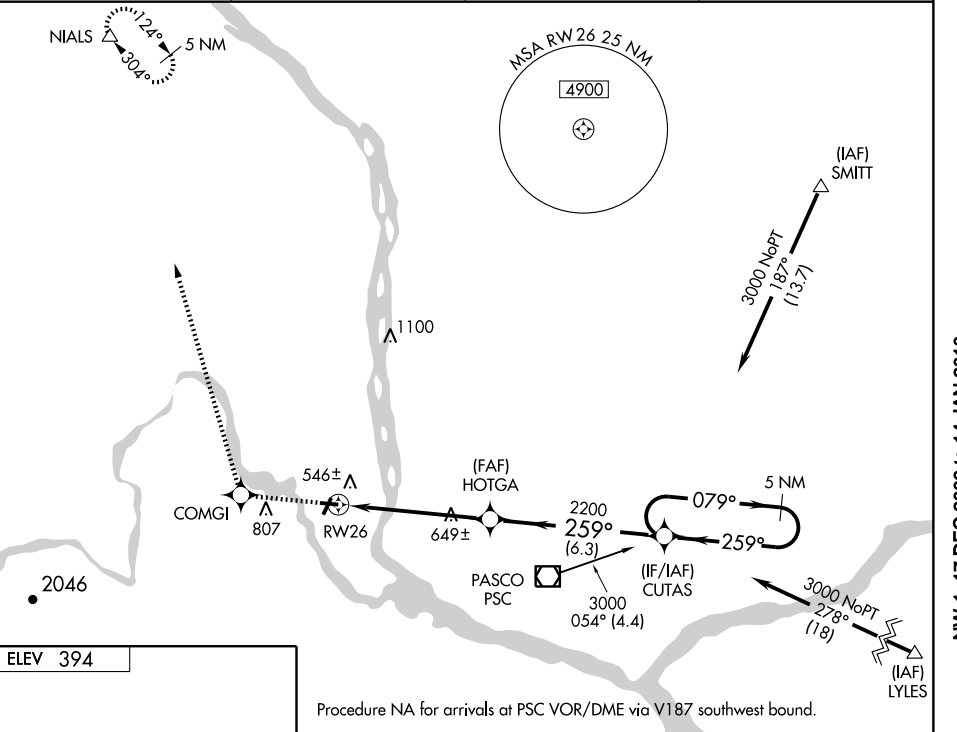
⚠

⚠

DME/DME RNP-0.3 NA. Baro-VNAV NA.

MISSED APPROACH: Climb to 3500 direct COMGI and via 327° track to NIALS and hold.

AWOS-3 132.675	CHINOOK APP CON ★ 128.75 377.2	CLNC DEL 122.4	UNICOM 122.7 (CTAF) 0
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ELEV 394

Inset diagram showing the intersection of RWY 26 and RWY 8-26. Key features include:

- TDZE**: 389 ft.
- Altitudes**: 424 ft, 436 ft.
- Distances**: 4009 x 75, 4009 x 100.

Procedure NA for arrivals at PSC VOR/DME via V187 southwest bound.

3500	COMGI	327° track	NIALS	CUTAS	5 NM Holding Pattern
↑	✧		△		
				HOTGA	
				RW26	
				2200	
				259°	
				079°	
				3000	
				GS 3.00°	
				TCH 50	
				5.5 NM	6.3 NM
CATEGORY	A	B	C	D	
LPV DA	676-1	287 (300-1)			
LNAV/VNAV DA	945-2	556 (600-2)			
LNAV MDA	920-1	531 (600-1)	920-1½ 531 (600-1½)	920-1¾ 531 (600-1¾)	
CIRCLING	1000-2	606 (700-2)		1140-2½ 746 (800-2½)	

REIL Rwy 1 and 19 **0**
MIRL Rwy 1-19 **0**
MIRL Rwy 8-26

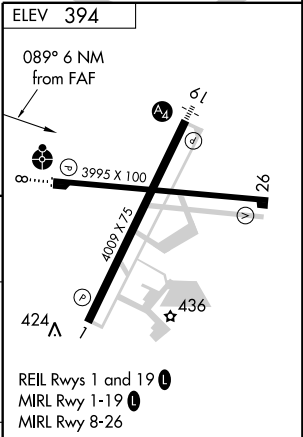
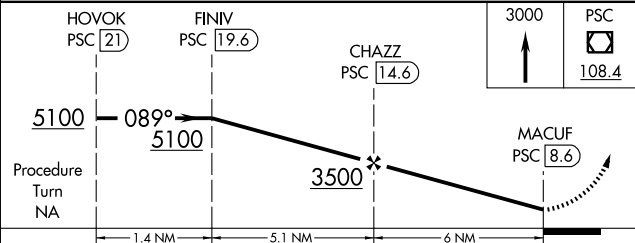
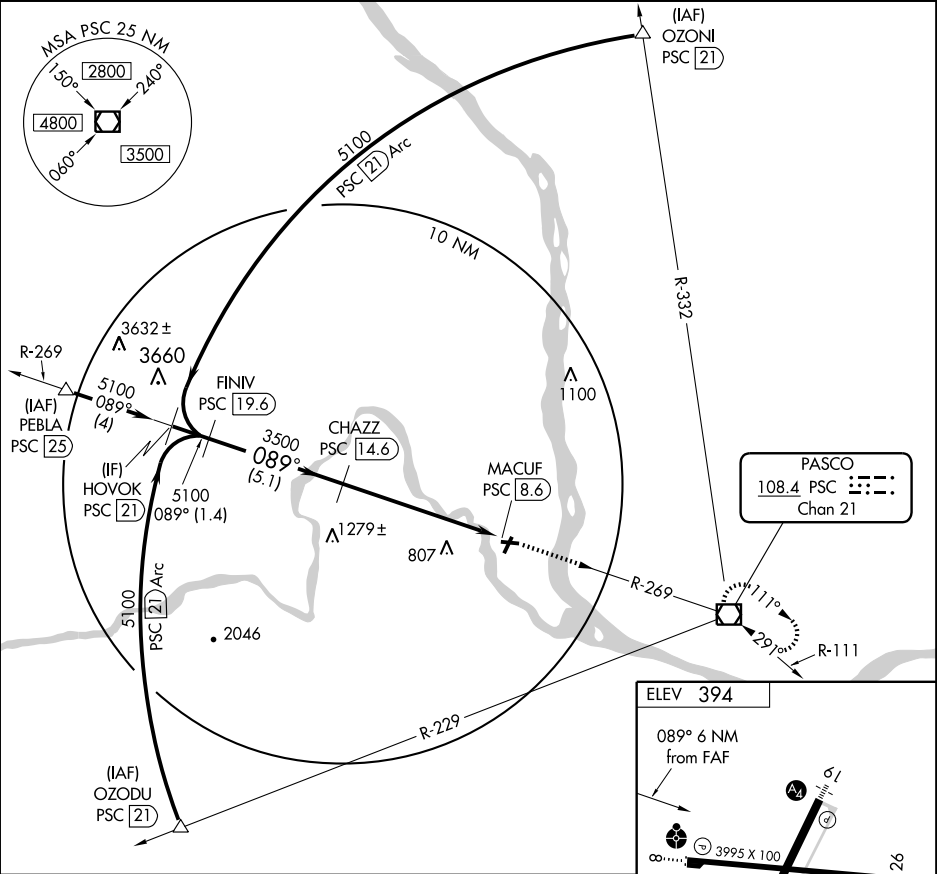
NW-1, 17 DEC 2009 to 14 JAN 2010

VOR/DME-A
RICHLAND (RLD)

VOR/DME PSC 108.4 Chan 21	APP CRS 089°	Rwy Idg TDZE Apt Elev	N/A N/A 394
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MISSED APPROACH: Climb to 3000 direct PSC VOR/DME and hold.

AWOS-3 132.675	CHINOOK APP CON ★ 128.75 377.2	CLNC DEL 122.4	UNICOM 122.7 (CTAF) 0
--------------------------	--	--------------------------	---------------------------------



CATEGORY	A	B	C	D	Knots	60	90	120	150	180
CIRCLING	1280-1¼	886 (900-1¼)	1280-2¾ 886 (900-2¾)	1280-3 886 (900-3)	Min:Sec					

VOR/DME PSC 108.4 Chan 21	APP CRS 269°	Rwy Idg 3995 TDZE 389 Apt Elev 394
---	------------------------	---

VOR RWY 26
RICHLAND (RLD)



MISSED APPROACH: Climbing right turn to 3000 direct PSC VOR/DME and hold.

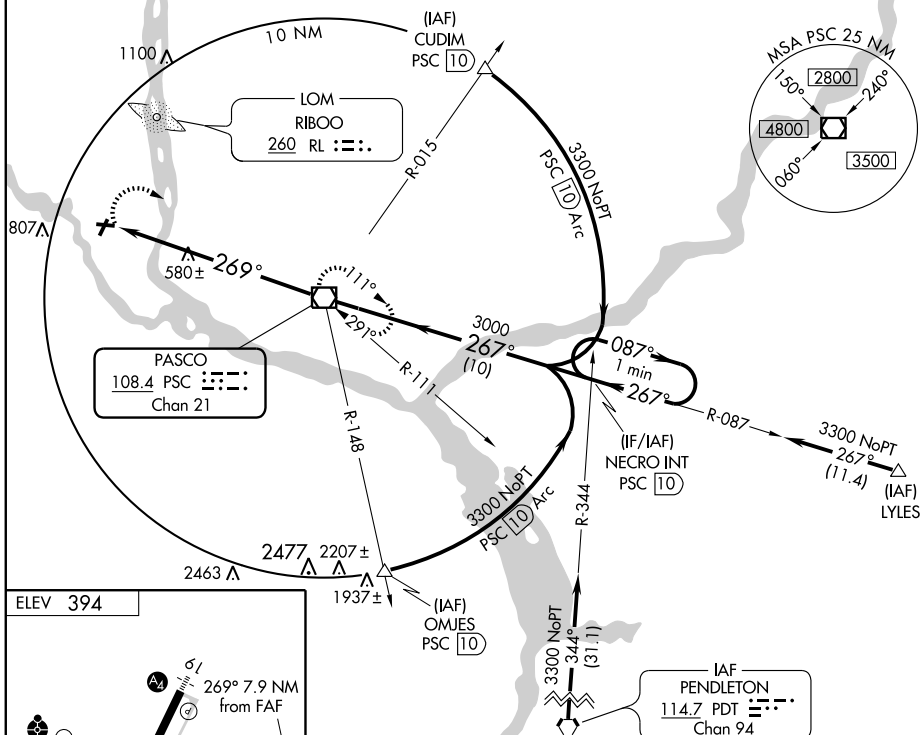
AWOS-3
132.675

CHINOOK APP CON ★
128.75 377.2

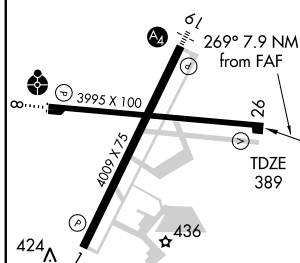
CLNC DEL
122.4

UNICOM
122.7 (CTAF) **L**

Procedure NA for arrivals on PDT VORTAC airway radials 290 CW 029.



ELEV 394

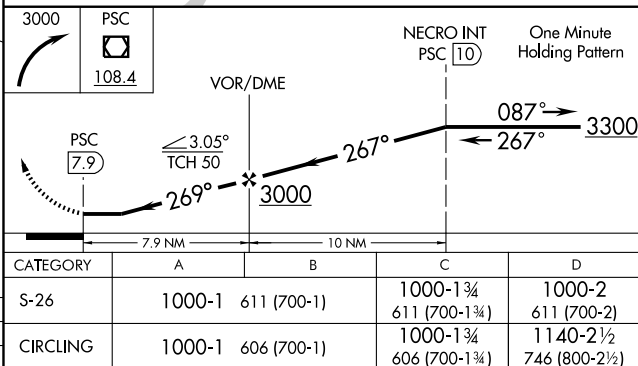
REIL Rwys 1 and 19 **L**

MIRL Rwy 1-19 L

MIRL Rwy 8-26

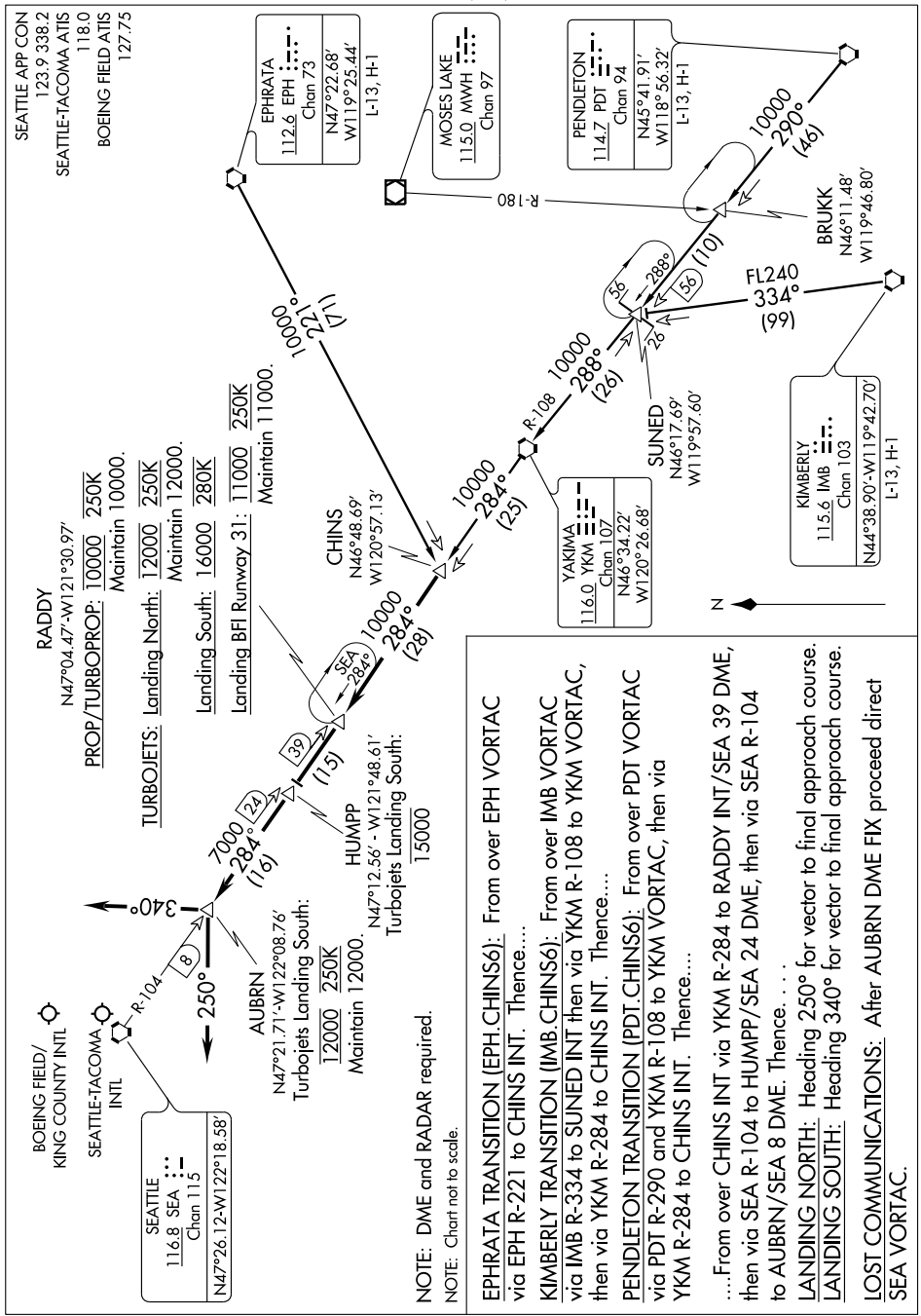
FAF to MAP 7.9 NM

Knots	60	90	120	150	180
Min:Sec	7:54	5:16	3:57	3:10	2:38



SEATTLE, WASHINGTON





SEATTLE APP CON

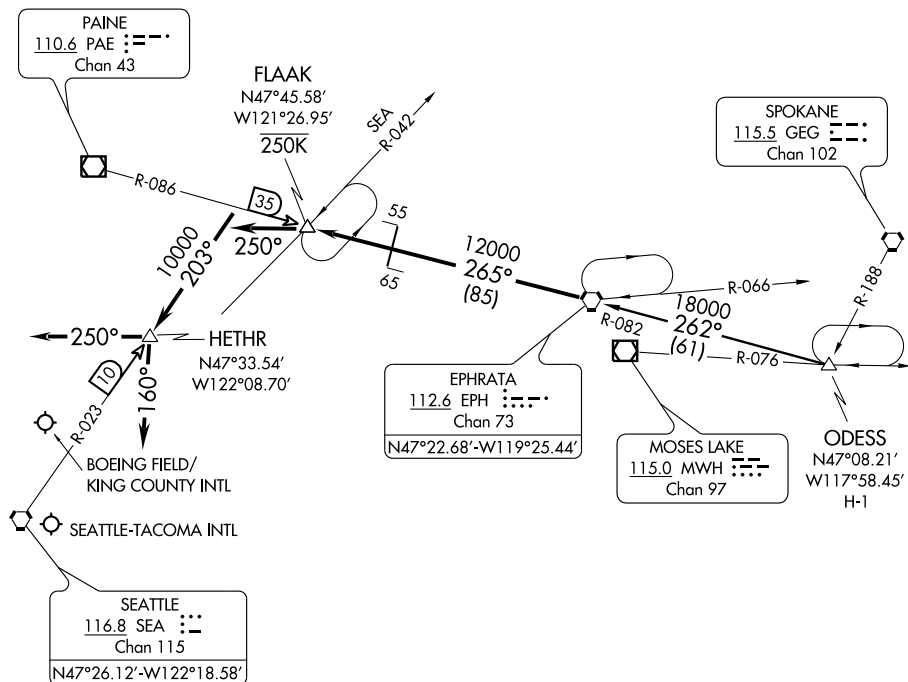
123.9 338.2

SEATTLE-TACOMA ATIS

118.0

BOEING FIELD ATIS

127.75



NOTE: DME and RADAR required.

ODESS TRANSITION (ODESS.EPH6): From over ODESS INT via EPH R-082 to EPH VORTAC. Thence....

....From over EPH VORTAC via EPH R-265 and PAE R-086 to FLAAK INT. Then via heading 250° to intercept the SEA R-023, then via SEA R-023 to HETHR INT, thence....

LANDING NORTH: Heading 160° for vector to final approach course;

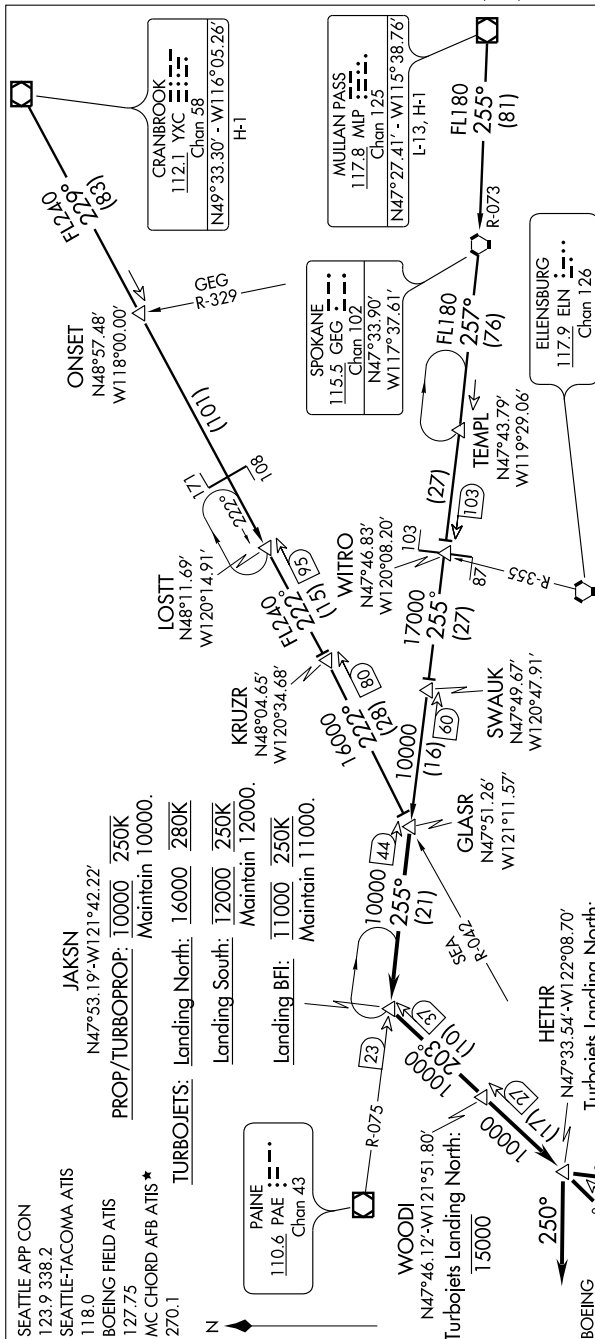
LANDING SOUTH: Heading 250° for vector to final approach course.

LOST COMMUNICATIONS: From over HETHR DME proceed direct SEA VORTAC.

GLASR SEVEN ARRIVAL

ST-582 (FAA)

SEATTLE, WASHINGTON



CRANBROOK TRANSITION (YXC GLASR7): From over YXC VOR/DME via YXC R-229 and SEA R-042 to GLASR INT. Thence....

MULLAN PASS TRANSITION (MLP GLASR7): From over MLP VOR/DME via MLP R-255 and GEG R-073 to GEG VORTAC, then via GEG R-257 and PAE R-075 to GLASR INT. Thence....

....from over GLASR/PAE 44 DME via PAE R-075 to JAKSN INT/PAE 23 DME, then via the SEA R-023 to WOODI/SEA 27 DME, then via SEA R-023 to HETHR/SEA 10 DME, Thence....

LANDING NORTH: Heading 160° for vectors to final approach course.

LANDING SOUTH: Heading 250° for vectors to final approach course.

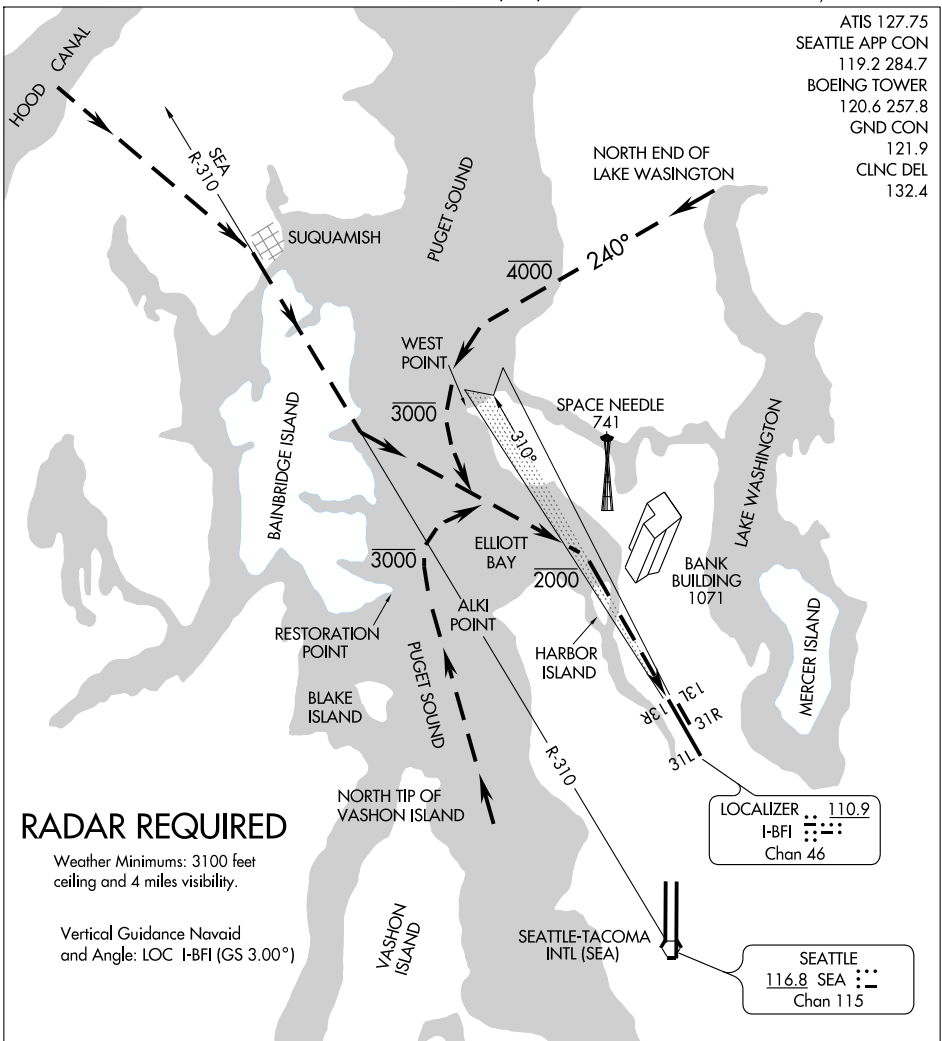
LANDING McCHORD AFB: From over HETHR DME FIX, proceed direct SEA VORTAC.

LOST COMMUNICATIONS: From over HETHR DME FIX, proceed direct SEA VORTAC.

NW-1, 17 DEC 2009 to 14 JAN 2010

NOTE: Chart not to scale.

NOTE: DME and RADAR required.



NM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
----	---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----

HARBOR VISUAL APPROACH RWY 13R

Expect radar vectors from the Northwest, over the Hood Canal on the SEA R-310; from the North and Northeast, to the north end of Lake Washington; from the Southwest, South and Southeast, to Puget Sound abeam the north tip of Vashon Island. When cleared for the Harbor Visual Approach Runway 13R, proceed via the depicted routes over the middle of Puget Sound and Elliott Bay to Harbor Island and complete a straight in visual approach to Boeing Field/King County Intl Airport (BFI). Adherence to the recommended altitudes is strongly recommended to reduce the incidence of TCAS alarms. Visual approaches to Seattle-Tacoma Intl Airport (SEA) may be conducted simultaneously through Elliott Bay. It is essential that all aircraft remain in the center of Elliot Bay for noise abatement.

LOC/DME I-BFI	APP CRS	Rwy Idg	9120
110.9	130°	TDZE	18
Chan 46		Apt Elev	21

ILS RWY 13R

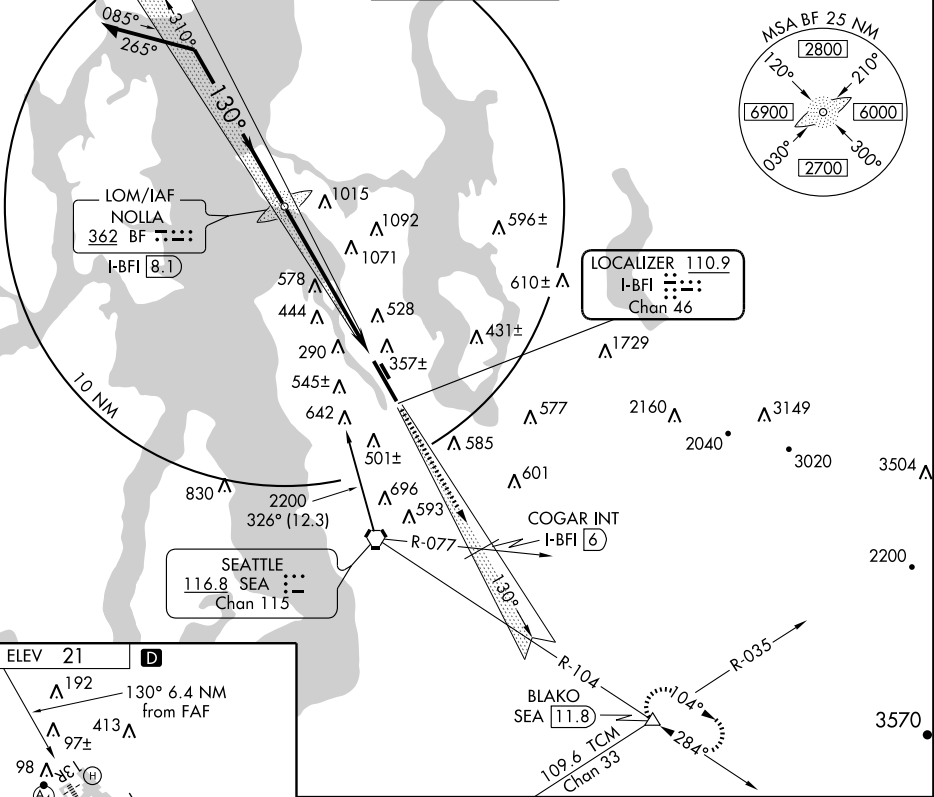
SEATTLE/BOEING FIELD/KING COUNTY INTL (BFI)

⚠ Inoperative table does not apply. Visibility reduction by helicopters NA. Circling requires descent on GS to MDA. Front course unusable beyond 20 degrees left of course.

MALSF

MISSED APPROACH: Climb to 2000 via I-BFI SE course to COGAR/I-BFI 6 DME/SEA R-077, then continue climb to 6400 via I-BFI SE course and SEA R-104 to BLAKO Int/SEA 11.8 DME and hold, continue climb-in-hold to 6400.

ATIS	SEATTLE APP CON	BOEING TOWER	GND CON	CLNC DEL
127.75	119.2 284.7	120.6 257.8	121.9	132.4



ELEV 21

D

130° 6.4 NM from FAF

192, 413, 97±, 98, 138, 3710 X 100, 376, 241, 162, 180±, 311, 59

TWR 112, 1000 X 200

MIRL Rwy 13L-31R, HIRL Rwy 13R-31L, REIL Rws 13L, 31L and 31R

FAF to MAP 6.4 NM

Knots	60	90	120	150	180
Min:Sec	6:24	4:16	3:12	2:34	2:08

Remain within 10 NM		NOLLA LOM I-BFI 8.1		2000 I-BFI SE CRS	COGAR I-BFI 6	6400 I-BFI SE CRS	SEA R-104 116.8	BLAKO △
2200		2123	VGSI and ILS glidepath not coincident.					
GS 3.00° TCH 40		2200	6.4 NM					
CATEGORY	A	B	C	D				
S-ILS 13R	291/50 273 (300-1)							
CIRCLING	780-1 759 (800-1)	840-1¼ 819 (900-1¼)	900-2½ 879 (900-2½)	960-3 939 (1000-3)				

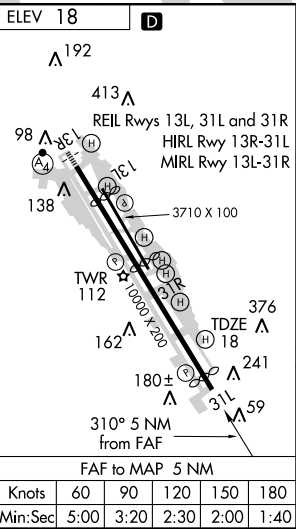
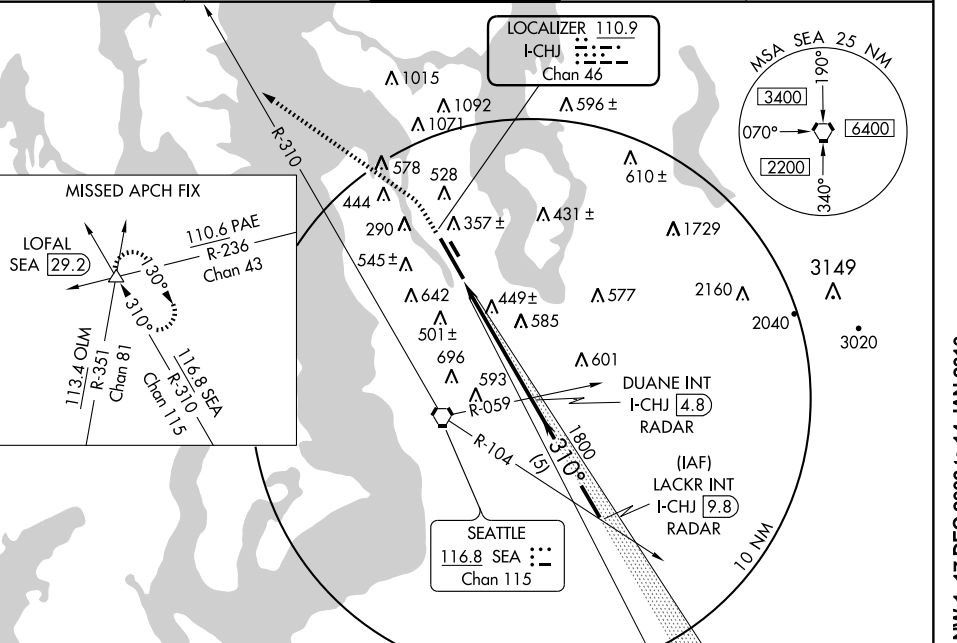
NW-1, 17 DEC 2009 to 14 JAN 2010

LOC/DME I-CHJ	APP CRS	Rwy Idg	9120
110.9	310°	TDZE	18
Chan 46		Apt Elev	18

⚠

MISSED APPROACH: Climb to 700 then climbing left turn to 6000 via heading 285° and SEA R-310 to LOFAL Int/SEA 29.2 DME and hold.

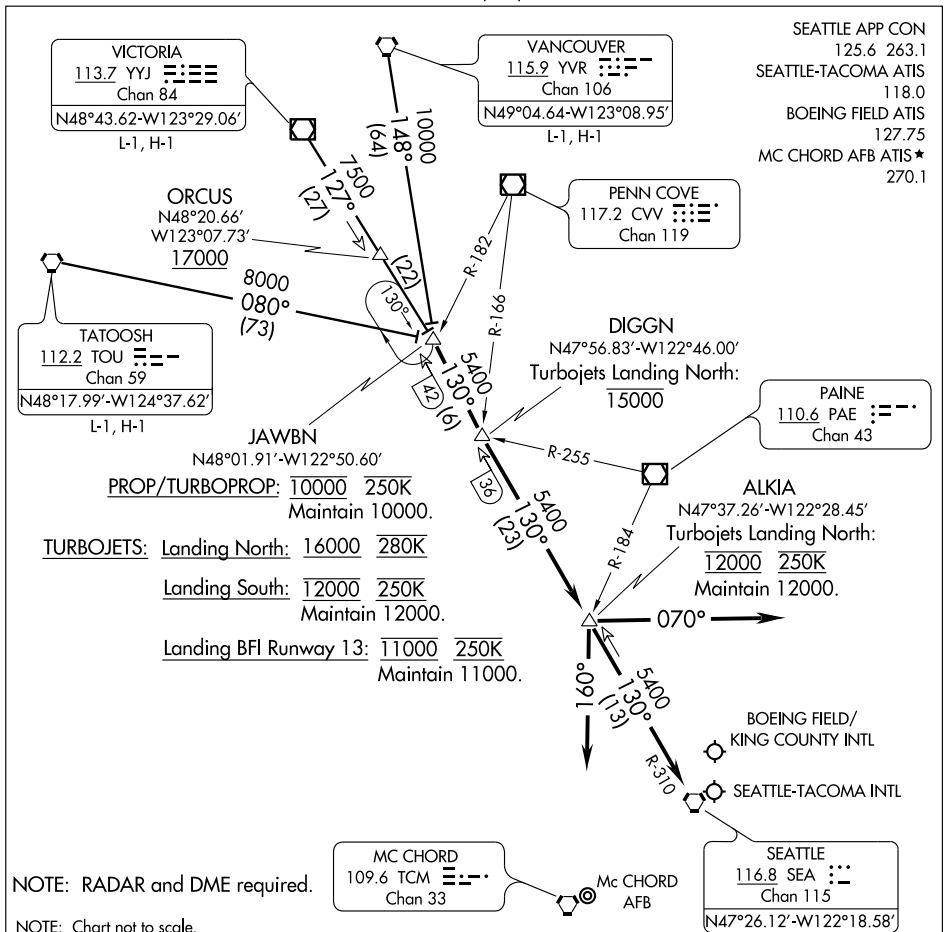
ATIS 127.75	SEATTLE APP CON 119.2 284.7	BOEING TOWER 120.6 257.8	GND CON 121.9	CLNC DEL 132.4
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RADAR REQUIRED

	700	6000	SEA R-310 116.8	LOFAL	DUANE INT I-CHJ 4.8 RADAR	LACKR INT I-CHJ 9.8 RADAR
	↑	↖ 285°		△		
					1739	2600
					*1800	*1800
					5 NM	5 NM
						GS 3.10° TCH 60
CATEGORY	A	B	C	D		
S-ILS 31L	410-1¼ 392 (400-1¼)					
S-LOC 31L	700-1 682 (700-1)	700-2 682 (700-2)	700-2½ 682 (700-2½)	700-2½ 682 (700-2½)		
CIRCLING	780-1¼ 762 (800-1¼)	840-1¼ 822 (900-1¼)	860-2½ 842 (900-2½)	960-3 942 (1000-3)		

NW-1, 17 DEC 2009 to 14 JAN 2010



TATOOSH TRANSITION (TOU.JAWBN1): From over TOU VORTAC via TOU R-080 to JAWBN INT. Thence....

VANCOUVER TRANSITION (YVR.JAWBN1): From over YVR VORTAC via YVR R-148 to JAWBN INT. Thence....

VICTORIA TRANSITION (YYJ.JAWBN1): From over YYJ VOR/DME via YYJ R-127 to JAWBN INT. Thence....

....From over JAWBN INT/SEA 42 DME via SEA R-310 to DIGGN/SEA 36 DME then via SEA R-310 to ALKIA INT/SEA 13 DME, thence....

LANDING NORTH: Depart ALKIA INT heading 160° for vectors to final approach course.

LANDING SOUTH: Depart ALKIA INT heading 070° for vectors to final approach course.

LANDING McCHORD AFB: After ALKIA INT proceed direct SEA VORTAC.

LOST COMMUNICATIONS: After ALKIA INT proceed direct SEA VORTAC.

KENT FOUR DEPARTURE

SEATTLE/BOEING FIELD/KING COUNTY INTL (BFI)
SL-384 (FAA) SEATTLE, WASHINGTON

ATIS 127.75
CLNC DEL
132.4
GND CON
121.9
BOEING TOWER
120.6 257.8
SEATTLE DEP CON
119.2 284.7

VICTORIA
113.7 YYJ
Chan 84
N48°43.62'-W123°29.06'
L-1, H-1

VANCOUVER
115.9 YVR
Chan 106
N49°04.64'-W123°08.95'
L-1, H-1

CRANBROOK
112.1 YXC
Chan 58
N49°33.30'-W116°05.27'
H-1

WHATCOM
113.0 HUH
Chan 77
N48°56.72'-W122°34.76'
L-1, H-1

PAINE
110.6 PAE
Chan 43
N47°55.19'-W122°16.67'
L-1

TAKE-OFF OBSTACLES:
463' Tree
288' Tree
DEPARTURE OBSTACLES:
620' Tower
558' Tree
562' Tank

MOSES LAKE
115.0 MWH
Chan 97
N47°12.65'-W119°19.01'
L-13, H-1

SEATTLE
116.8 SEA
Chan 115
N47°26.12'-W122°18.58'
L-1, H-1

WENATCHEE
111.0 EAT
Chan 47
N47°23.98'-W120°12.65'
L-13

McCHORD
109.6 TCM
Chan 33
N47°08.86'-W122°28.50'
L-1, H-1

HOQUIAM
117.7 HQM
Chan 124
N46°56.82'-W124°08.96'
L-1, H-1

OLYMPIA
113.4 OLM
Chan 81
N46°58.30'-W122°54.11'
L-1, H-1

ELLENSBURG
117.9 ELN
Chan 126
N47°01.46'-W120°27.51'
L-13

BATTLE GROUND
116.6 BTG
Chan 113
N45°44.87'-W122°35.49'
L-1, H-1

YAKIMA
116.0 YKM
Chan 107
N46°34.22'-W120°26.68'
L-13, H-1

TAKE-OFF Rwy 13L/R: Standard with a minimum climb of 380' per NM to 700'.

NOTE: No left turns authorized until leaving 1000'.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 13L/R: Climb runway heading, expect radar vectors to assigned route/fix. Maintain 2000 or ATC assigned altitude, expect clearance to filed altitude within 3 minutes after departure.

LOST COMMUNICATIONS: If no contact with departure control within 3 minutes after departure, climbing right turn direct SEA VORTAC, climb in SEA VORTAC holding pattern (E, left turn 290° inbound) to cross SEA VORTAC at or above MEA/MCA for direction of flight before proceeding enroute.

LOC/DME RWY 13R
SEATTLE/BOEING FIELD/KING COUNTY INTL (BFI)

MALSF

MISSED APPROACH: Climb to 2000 via I-BFI SE course to COGAR/I-BFI 6 DME/SEA R-077, then continue climb to 6400 via I-BFI SE course and SEA R-104 to BLAKO Int/SEA 11.8 DME and hold, continue climb-in-hold to 6400.

[illegible]

Remain within 10 NM 		2000 I-BFI SE CRS	COGAR I-BFI 6	6400 I-BFI SE CRS	SEA R-104 116.8	BLAKO △
CATEGORY	A	B	C	D		
S-LOC 13R	560/50	542 (600-1)	560-1½ 542 (600-1½)	560-1¾ 542 (600-1¾)		
CIRCLING	780-1 759 (800-1)	840-1¼ 819 (900-1¼)	900-2½ 879 (900-2½)	960-3 939 (1000-3)		

NEEDLE SIX DEPARTURE

SL-384 (FAA)

SEATTLE/ BOEING FIELD/KING COUNTY INTL (BFI)
SEATTLE, WASHINGTON

ATIS 127.75
CLNC DEL
132.4
GND CON
121.9
BOEING TOWER
120.6 257.8
SEATTLE DEP CON
119.2 284.7

VANCOUVER
115.9 YVR
Chan 106
N49°04.64'-W123°08.95'
L-1, H-1

CRANBROOK
112.1 YXC
Chan 58
N49°33.30'-W116°05.27'
H-1

WHATCOM
113.0 HUH
Chan 77
N48°56.72'-W122°34.76'
L-1, H-1

TAKE-OFF OBSTACLES:
192' Flagpole
350' Tower

DEPARTURE OBSTACLES:
1071' Building
578' Towers

VICTORIA
113.7 YYJ
Chan 84
N48°43.62'-W123°29.06'
L-1, H-1

SEATTLE
116.8 SEA
Chan 115
N47°26.12'-W122°18.58'
L-1, H-1

PAINE
110.6 PAE
Chan 43
N47°55.19'-W122°16.66'
L-1

WENATCHEE
111.0 EAT
Chan 47
N47°23.98'-W120°12.65'
L-13

MOSES LAKE
115.0 MWH
Chan 97
N47°12.65'-W119°19.01'
L-13, H-1

HOQUIAM
117.7 HQM
Chan 124
N46°56.82'-W124°08.96'
L-1, H-1

OLYMPIA
113.4 OLM
Chan 81
N46°58.30'-W122°54.11'
L-1, H-1

ELLENSBURG
117.9 ELN
Chan 126
N47°01.46'-W120°27.51'
L-13

BATTLE GROUND
116.6 BTG
Chan 113
N45°44.87'-W122°35.49'
L-1, H-1

YAKIMA
116.0 YKM
Chan 107
N46°34.22'-W120°26.68'
L-13, H-1

TAKE-OFF Rwy 31L/R: Standard with a minimum climb of
350' per NM to 1300'.

NOTE: No right turns authorized until leaving 1300'.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 31L/R: Climb runway heading, expect radar vectors to assigned route/fix. Maintain 2000 or ATC assigned altitude, expect clearance to filed altitude within 3 minutes after departure.

LOST COMMUNICATIONS: If no contact with departure control within 3 minutes after departure, climbing left turn direct SEA VORTAC, climb in SEA VORTAC holding pattern (E, left turn 290° inbound) to cross SEA VORTAC at or above MEA/MCA for direction of flight before proceeding enroute.

OLYMPIA SIX ARRIVAL

ST-582 (FAA)

SEATTLE, WASHINGTON

SEATTLE APP CON

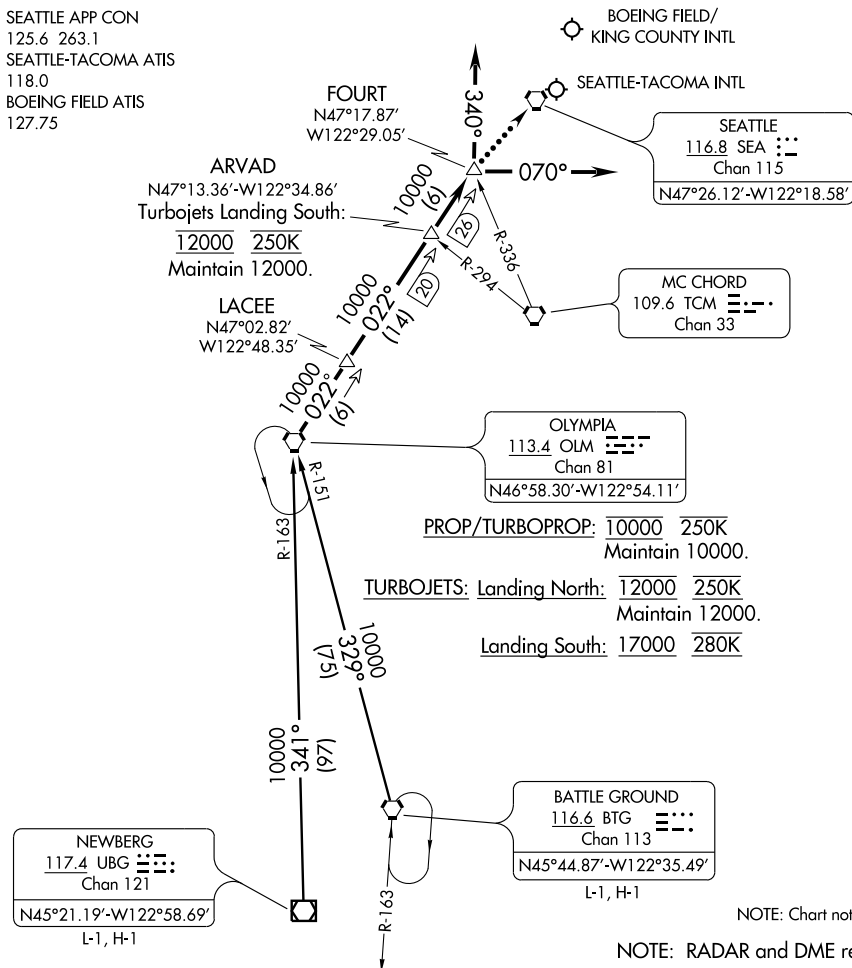
125.6 263.1

SEATTLE-TACOMA ATIS

118.0

BOEING FIELD ATIS

127.75



NOTE: Chart not to scale.

NOTE: RADAR and DME required.

BATTLE GROUND TRANSITION (BTG.OLM6): From over BTG VORTAC via BTG R-329 and OLM R-151 to OLM VORTAC. Thence....

NEWBERG TRANSITION (UBG.OLM6): From over UBG VOR/DME via UBG R-341 and OLM R-163 to OLM VORTAC. Thence....

....From over OLM VORTAC via OLM R-022 to LACEE/OLM 6 DME, then via OLM R-022 to ARVAD INT/OLM 20 DME, then via OLM R-022 to FOURT INT/OLM 26 DME, thence...

LANDING NORTH: Depart FOURT INT/OLM 26 DME heading 070° for vectors to final approach course.

LANDING SOUTH: Depart FOURT INT/OLM 26 DME heading 340° for vectors to final approach course.

LOST COMMUNICATIONS: From over FOURT INT/OLM 26 DME, proceed direct SEA VORTAC.

T

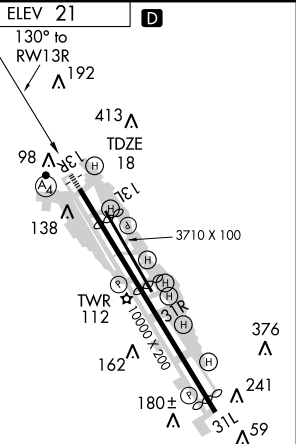
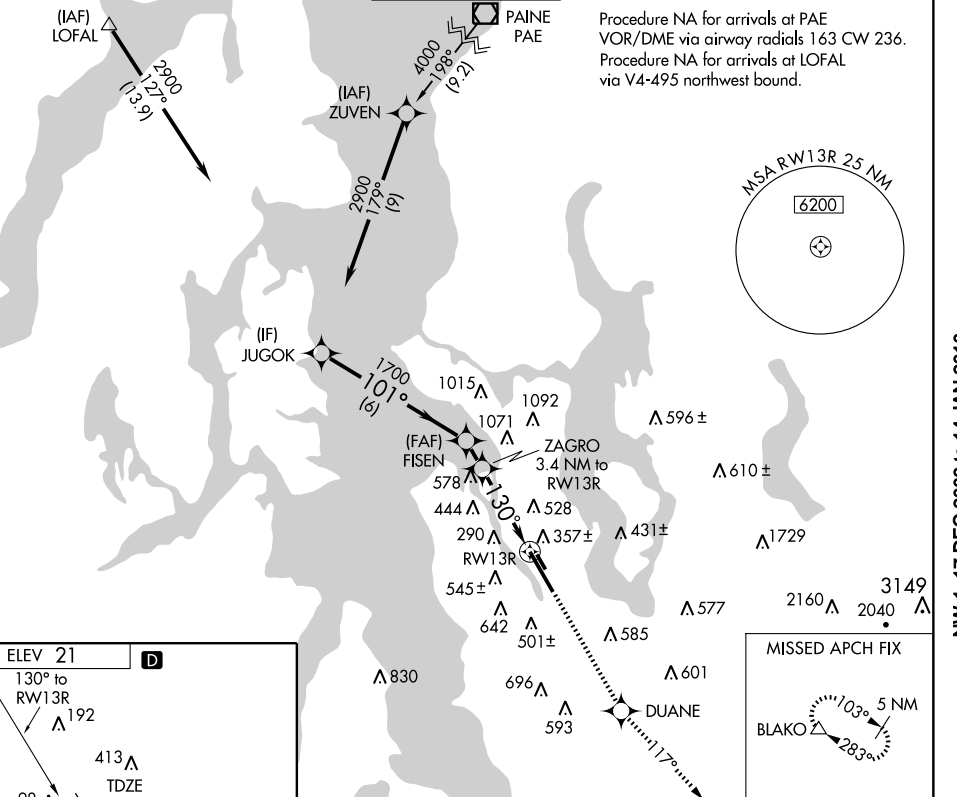
A

Circling to Rwy 13L/31R NA at night.
Inoperative table does not apply.
DME/DME RNP -0.3 NA. Visibility reduction by helicopters NA.

MALSF
A4

MISSED APPROACH: Climb to 6400 direct DUANE
and via 117° track to BLAKO and hold, continue
climb-in-hold to 6400.

ATIS 127.75	SEATTLE APP CON 119.2 284.7	BOEING TOWER 120.6 257.8	GND CON 121.9	CLNC DEL 132.4
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MIRL Rwy 13L-31R
HIRL Rwy 13R-31L
REIL Rwy 13L, 31L and 31R


JUGOK		FISEN	ZAGRO 3.4 NM to RWY 13R	6400	DUANE	117° track	BLAKO
2900		1700	1280	VGS and descent angles not coincident			
6 NM		1.1 NM	1.4 NM	2 NM to RWY 13R			
CATEGORY	A	B	C	D			
LNAV MDA	720/50	703 (700-1)	720-2 703 (700-2)	720-2¼ 703 (700-2¼)			
CIRCLING	780-1 759 (800-1)	840-1¼ 819 (900-1¼)	900-2¾ 879 (900-2¾)	960-3 939 (1000-3)			

APP CRS	Rwy Idg	9120
130°	TDZE	18
	Apt Elev	21

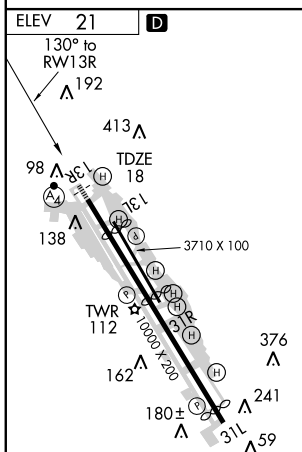
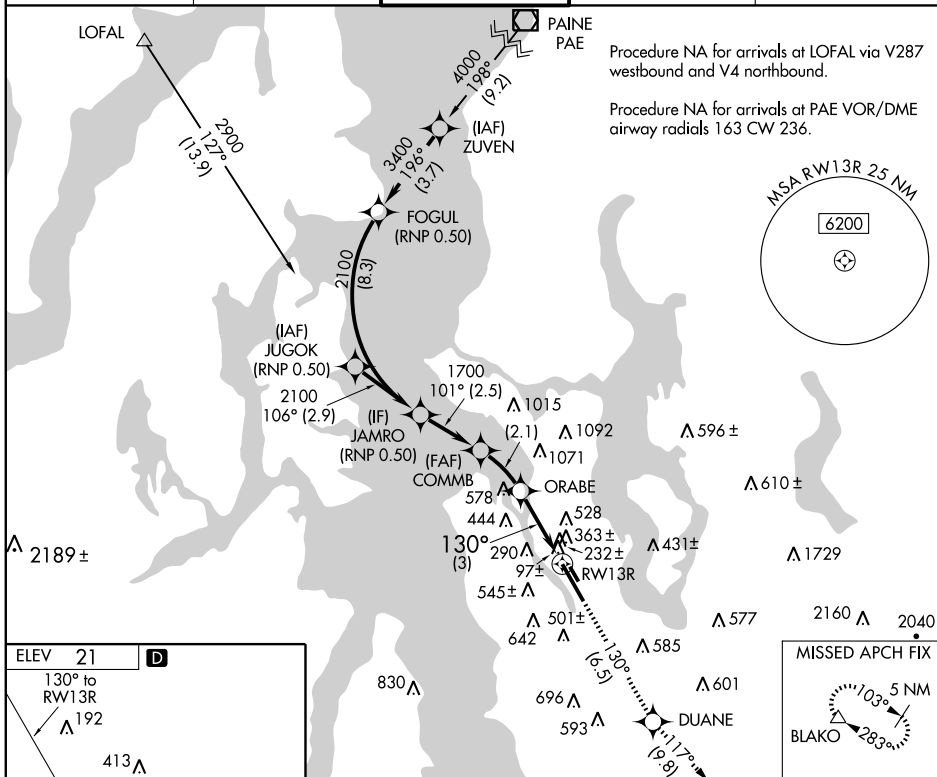
RNAV (RNP) Z RWY 13R

SEATTLE/ BOEING FIELD/KING COUNTY INTL (BFI)

GPS and RF required. For uncompensated Baro-VNAV systems, procedure NA below -3°C (26°F) or above 48°C (119°F). For inoperative MALSF, increase RNP 0.15 visibility to 1¼, RNP 0.30 to 2¼.

MALSF  **MISSED APPROACH:** Climb to 2000 via 130° track to DUANE then climb to 6400 via 117° track to BLAKO and hold. Continue climb-in-hold to 6400.

ATIS 127.75	SEATTLE APP CON 119.2 284.7	BOEING TOWER 120.6 257.8	GND CON 121.9	CLNC DEL 132.4
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JAMRO	2100	Procedure Turn NA	GP 3.00° TCH 50	2000	DUANE	6400	BLAKO
	101°			130°		117°	
	1700						
	2.5 NM	2.1 NM	3 NM				
CATEGORY	A	B	C	D			
RNP 0.15 DA	523-1½ 505 (600-1½)						
RNP 0.30 DA	637-2 619 (700-2)						

**SPECIAL AIRCRAFT & AIRCREW
AUTHORIZATION REQUIRED**

MIRL Rwy 13L-31R
HIRL Rwy 13R-31L
REIL Rwy 13L, 31L and 31R

TANKS

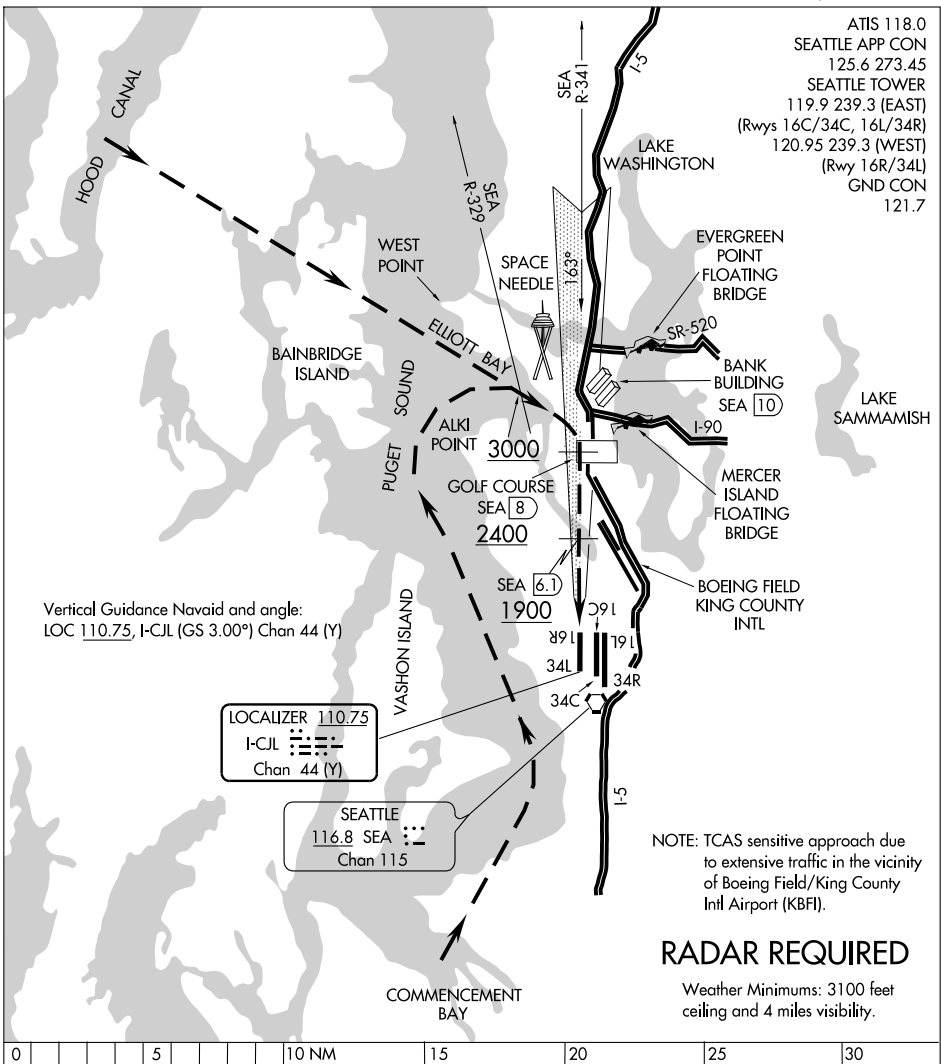
NW-1. 17 DEC 2009 to 14 JAN 2010

ALKI VISUAL RWY 16R

AL-582 (FAA)

SEATTLE-TACOMA INTL (SEA)

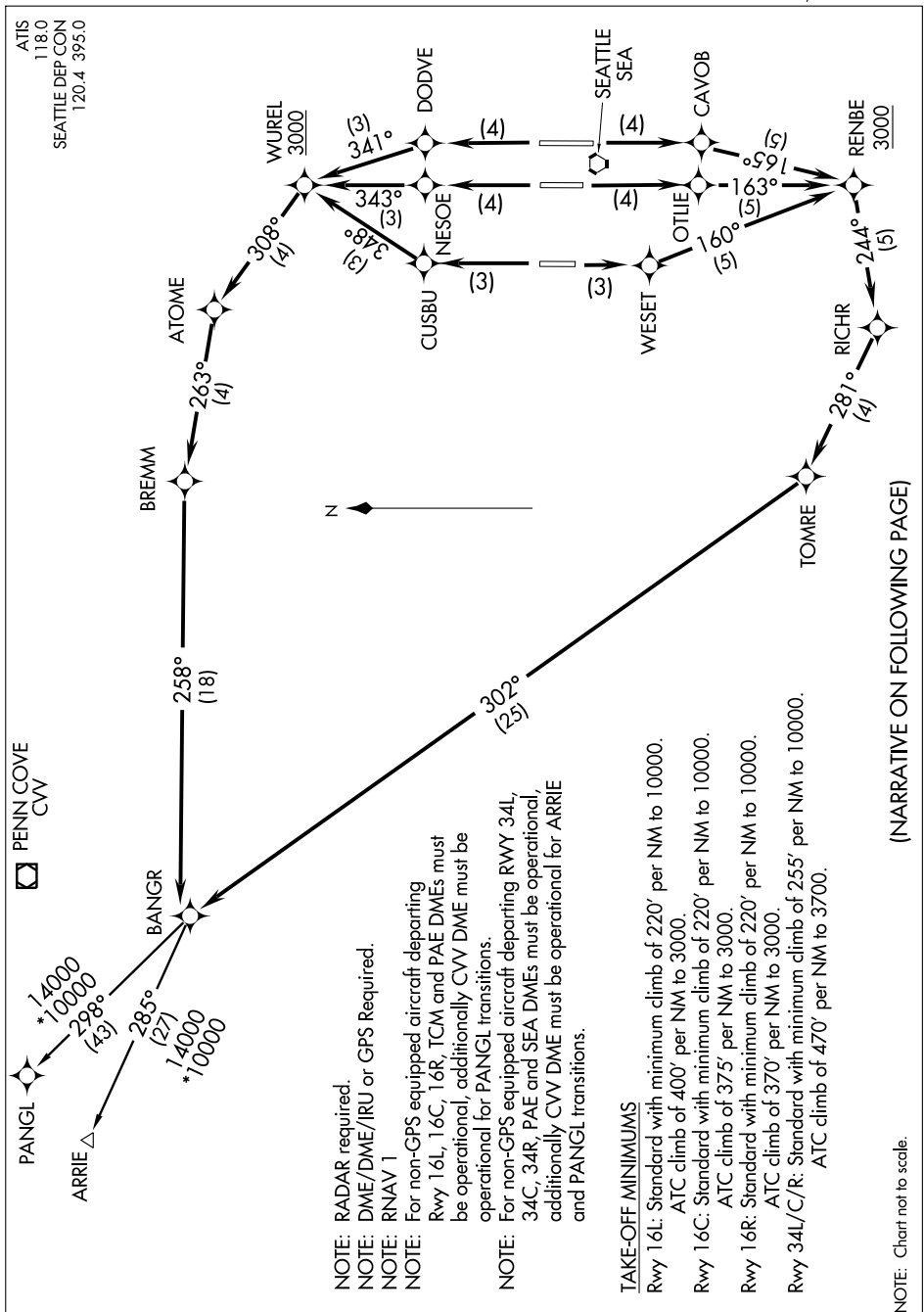
SEATTLE, WASHINGTON



ALKI VISUAL APPROACH RWY 16R

When the ceiling is at least 3100' and visibility is at least 4 miles, aircraft may be vectored over Puget Sound for an Alki Visual Runway 16R Approach. When cleared for an Alki Visual Approach: proceed inbound visually over the middle of Elliott Bay (via route depicted); intercept the Runway 16R Localizer/SEA R-341 on Runway 16R extended centerline at the golf course (8 DME) and complete a straight in visual approach to the airport. On final approach, a descent profile of approximately 300' per mile may be made with reference to the altitudes shown at the visual checkpoints or associated DME/fix positions.

BANGR SIX DEPARTURE (RNAV)



BANGR SIX DEPARTURE (RNAV)



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 16L: Climb direct CAVOB, then via 165° track to cross RENBE at or above 3000, then via depicted route to BANGR, thence. . . .

TAKE-OFF RUNWAY 16C: Climb direct OTLIE, then via 163° track to cross RENBE at or above 3000, then via depicted route to BANGR, thence. . . .

TAKE-OFF RUNWAY 16R: Climb direct WESET, then via 160° track to cross RENBE at or above 3000, then via depicted route to BANGR, thence. . . .

TAKE-OFF RUNWAY 34L: Climb direct CUSBU, then via 348° track to cross WUREL at or above 3000, then via depicted route to BANGR, thence. . . .

TAKE-OFF RUNWAY 34C: Climb direct NESOE, then via 343° track to cross WUREL at or above 3000, then via depicted route to BANGR, thence. . . .

TAKE-OFF RUNWAY 34R: Climb direct DODVE, then via 341° track to cross WUREL at or above 3000, then via depicted route to BANGR, thence. . . .

. . . . via (transition). Maintain assigned altitude, expect filed altitude/flight level 15 NM from SEA VORTAC.

ARRIE TRANSITION (BANGR6.ARRIE)

PANGL TRANSITION (BANGR6.PANGL)

TAKE-OFF OBSTACLE NOTES

Rwy 16L: Trees beginning 2908' from DER, 1064' right of centerline, up to 100' AGL/476' MSL.

Rwy 16C: Trees beginning 4477' from DER, 484' right of centerline, up to 100' AGL/507' MSL.

Rwy 16R: Trees, antenna on building and light pole beginning 488' from DER, 436' left of centerline, up to 100' AGL/507' MSL. Trees beginning 1137' from DER, 587' right of centerline, up to 100' AGL/468' MSL.

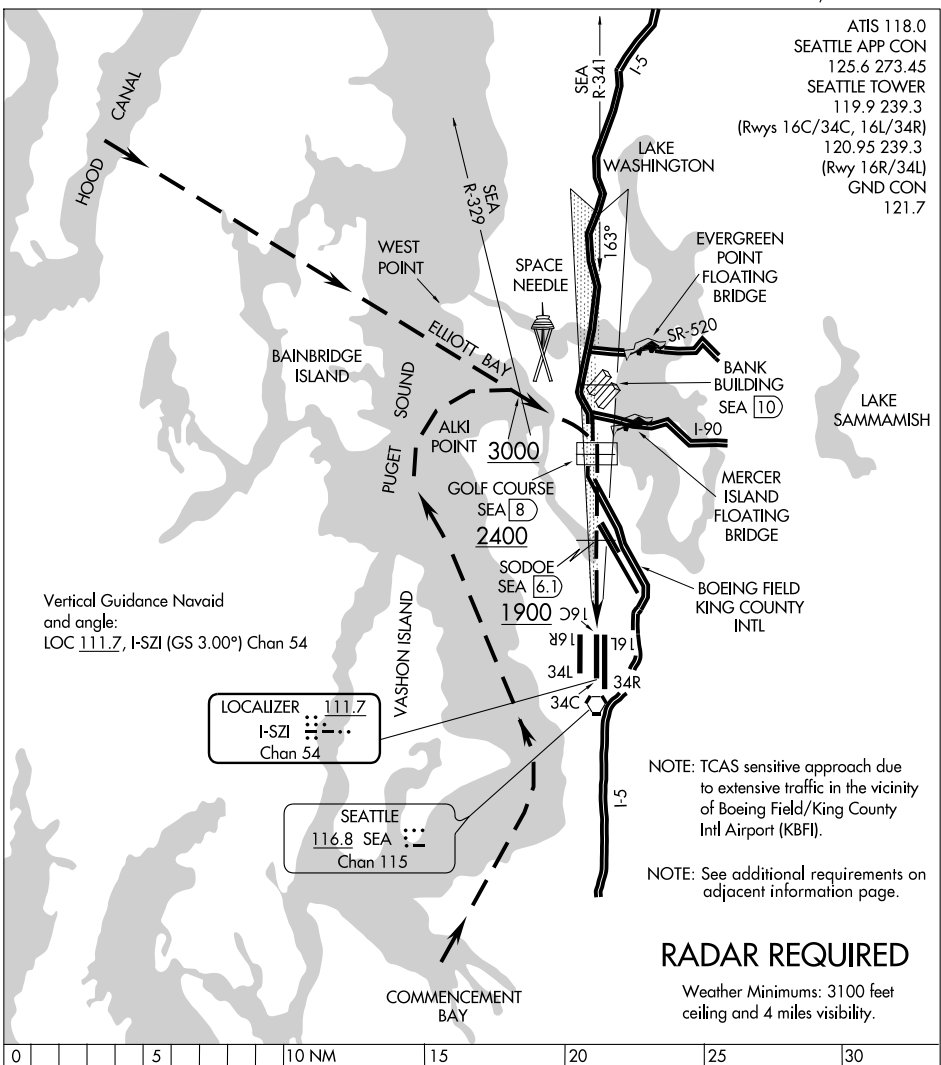
Rwy 34L: Fence 189' from DER, 401' right of centerline, up to 12' AGL/420' MSL. Trees beginning 4010' from DER, 857' left of centerline, up to 100' AGL/522' MSL.

BAY VISUAL RWY 16C

AL-582 (FAA)

SEATTLE-TACOMA INTL (SEA)

SEATTLE, WASHINGTON



BAY VISUAL APPROACH RWY 16C

When the ceiling is at least 3100' and visibility is at least 4 miles, aircraft may be vectored over Puget Sound for a Bay Visual Runway 16C Approach. When cleared for a Bay Visual Approach: proceed inbound visually over the middle of Elliott Bay (via route depicted); intercept the Runway 16C Localizer/SEA R-341 on Runway 16C extended centerline at the golf course (8 DME) and complete a straight in visual approach to the airport. On final approach, a descent profile of approximately 300' per mile may be made with reference to the altitudes shown at the visual checkpoints or associated DME/fix positions.

SEATTLE-TACOMA INTL AIRPORT**ALERT NOTICE****ATTENTION ALL AIRCRAFT LANDING TO THE SOUTH:**

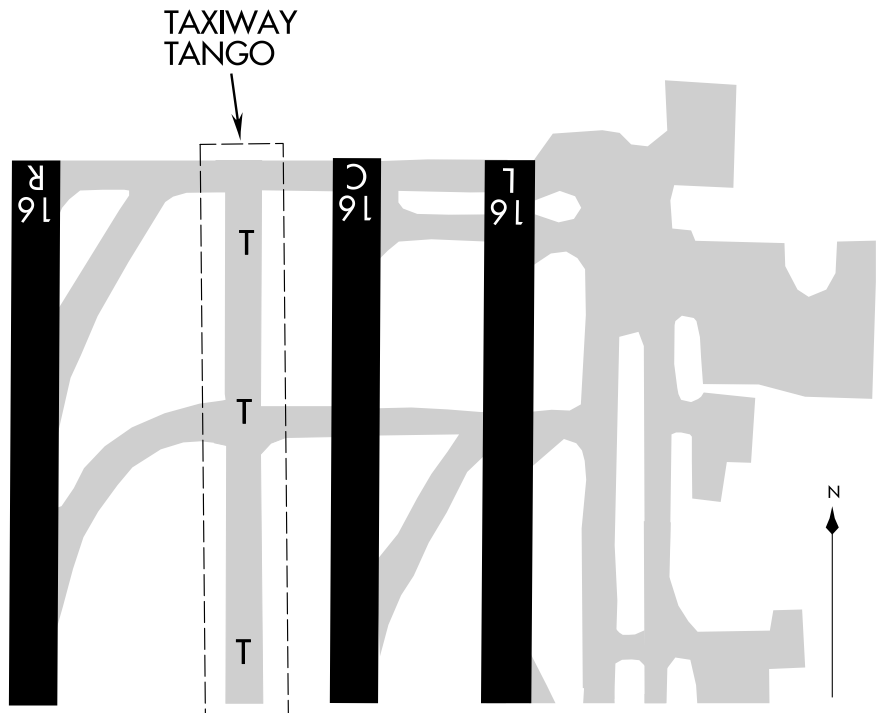
When transitioning from an instrument procedure to a visual approach to Runway 16C, verify that you are aligned for the intended landing Runway, not Taxiway Tango. Taxiway Tango is west and parallel to Runway 16C.

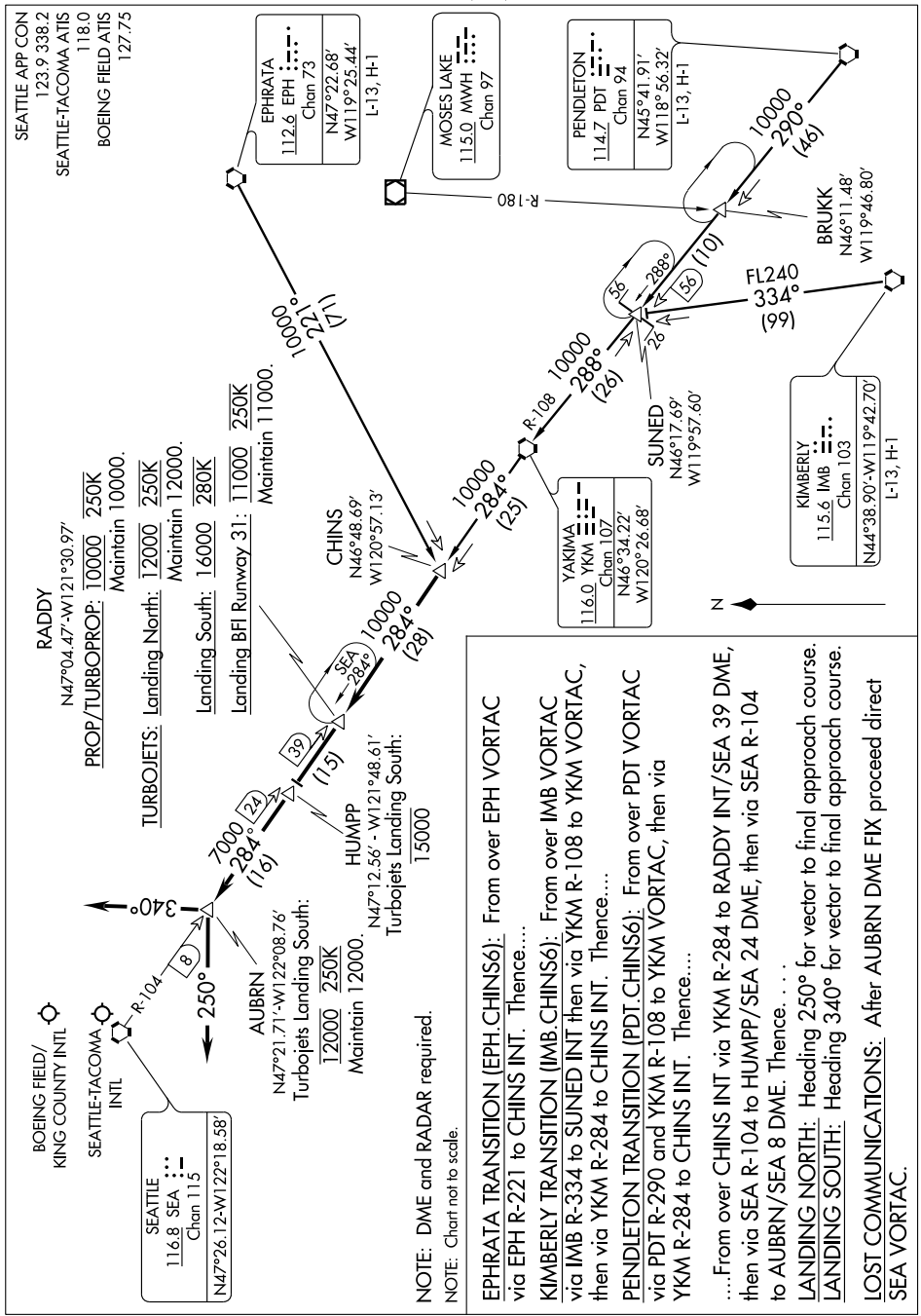
TRANSITION TO VISUAL:

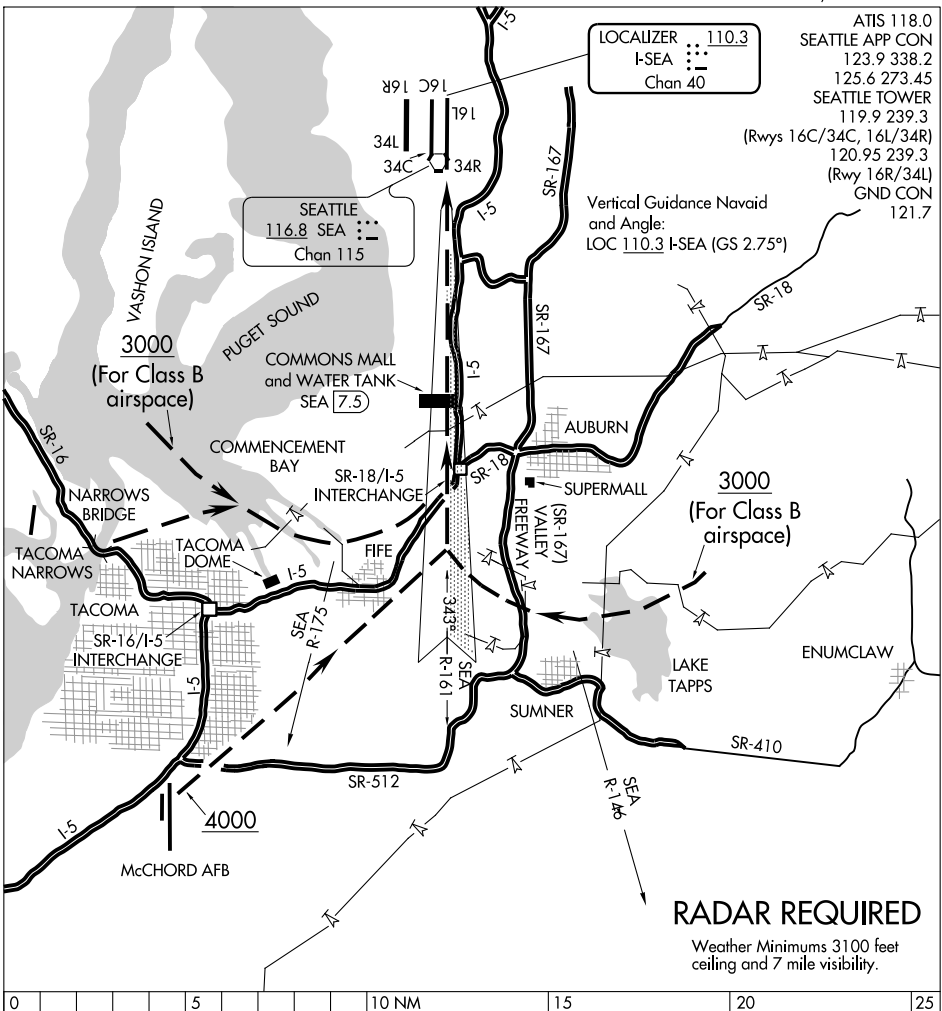
Taxiway Tango has been mistaken for Runway 16C from the air during certain visibility conditions, i.e., wet runway, low sun angle reflections. Aircrews are advised to be aware of the proximity of the taxiway to Runway 16C and its runway-like appearance while on approach.

RECOMMENDATION:

Aircrews should use visual cues, e.g., approach lighting systems, REILs, when available, to confirm alignment with Runway 16C not Taxiway Tango. Additionally, it is recommended to track the localizer until the runway environment is visually verified.

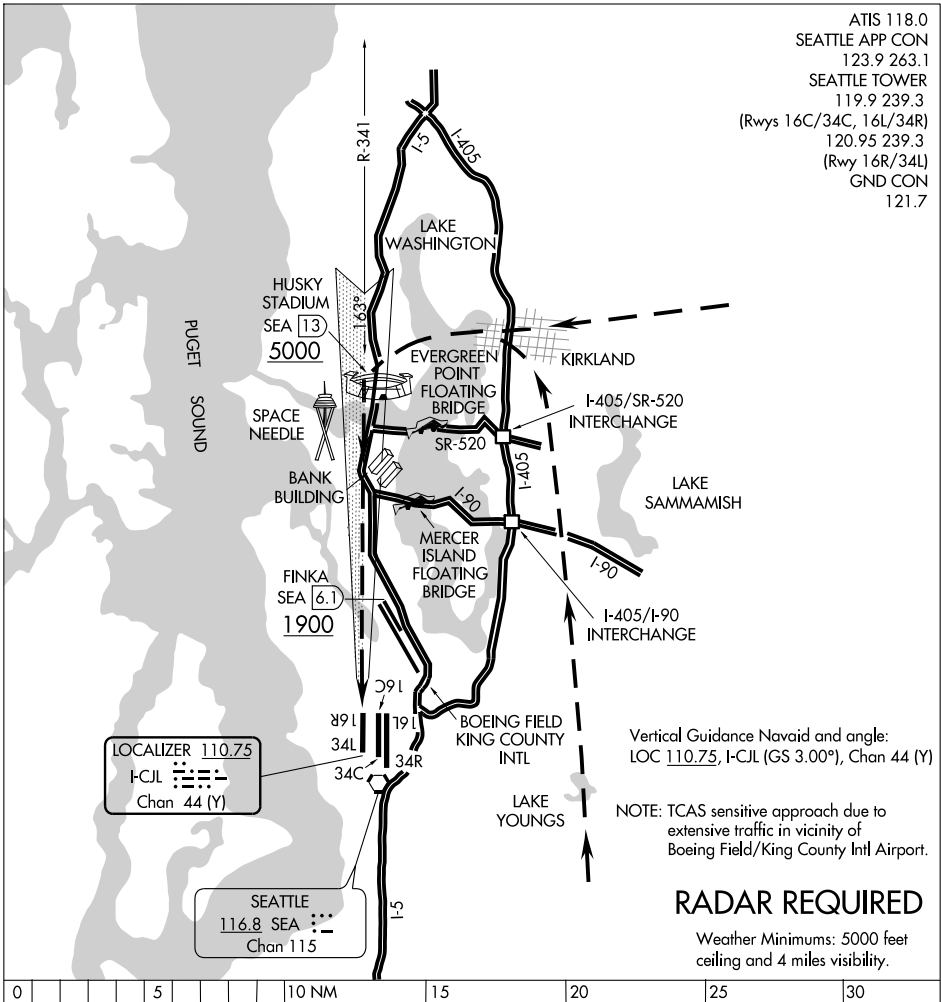






COMMONS VISUAL APPROACH RWY 34R

When the ceiling is at least 3100' and visibility is at least 7 miles, aircraft may be vectored towards Commencement Bay or McChord AFB or Lake Tapps for a Commons Visual Runway 34R Approach. When cleared for this approach; proceed inbound visually using the depicted landmarks to the centerline of runway 34R. Turn final before or over the interchange of State Road 18 (SR-18) and Interstate 5. Be established on the localizer or runway centerline at the Commons Mall and Water Tank (7.5 DME) and proceed visually to the runway.



DAWG VISUAL APPROACH RWY 16R

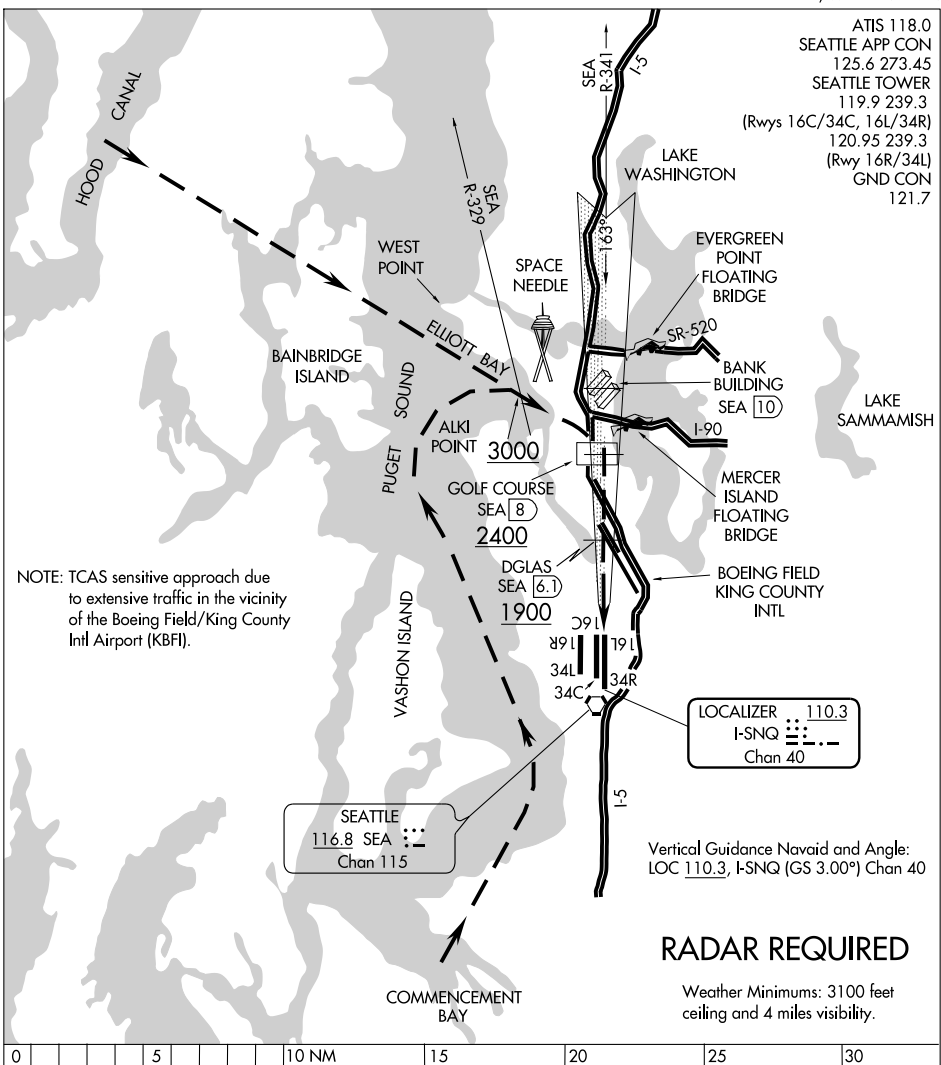
When the ceiling is at least 5000' and visibility is at least 4 miles, aircraft may be vectored over Kirkland or Lake Youngs for a Dawg Visual Runway 16R Approach. When cleared for a Dawg Visual Approach; proceed inbound visually over Husky Stadium (via route depicted); intercept the Runway 16R localizer/SEA R-341 at 13 DME and complete a straight in visual approach to the airport.

ELLIOTT VISUAL RWY 16L

AL-582 (FAA)

SEATTLE-TACOMA INTL (SEA)


SEATTLE, WASHINGTON



ELLIOTT VISUAL APPROACH RWY 16L

When the ceiling is at least 3100' and visibility is at least 4 miles, aircraft may be vectored over Puget Sound for an Elliott Visual Runway 16L Approach. When cleared for an Elliott Visual Approach: proceed inbound visually over the middle of Elliott Bay (via route depicted); intercept the 16L Localizer/SEA R-341 on Runway 16L extended centerline at the golf course (8 DME) and complete a straight in visual approach to the airport. On final approach, a descent profile of approximately 300' per mile may be made with reference to the altitude shown at the visual checkpoints or associated DME/fix positions.

ATIS
118.0
SEATTLE DEP CON
120.4 395.0

VICTORIA
113.7 YYJ 
Chan 84

SEATTLE
116.8 SEA \therefore
Chan 115
N47°26.12' - W122°18.58'

NICHY
N47°21.13'
W122°18.58'
3000
RADAR

TAKE-OFF MINIMUMS

Rwys 34L/C/R: NA

Rwys 16L/C/R: Standard.

Rwy 16L: ATC climb of 560' per NM to 3000.

Rwy 16C: ATC climb of 515' per NM to 3000.

Rwy 16R: ATC climb of 500' per NM to 3000.

TAKE-OFF OBSTACLE NOTES

Rwy 16L: Trees beginning 2908' from DER, 1064' right of centerline, up to 100' AGL/476' MSL.

Rwy 16C: Trees beginning 4477' from DER, 484' right of centerline, up to 100' AGL/507' MSL.

Rwy 16R: Trees, antenna on building and light pole beginning 488' from DER 436' left of centerline, up to 100' AGL/507' MSL. Trees beginning 1137' from DER, 587' right of centerline, up to 100' AGL/468' MSL.

NOTE: RADAR and DME required.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 16L: Climb heading 164° and SEA R-161, thence. . .

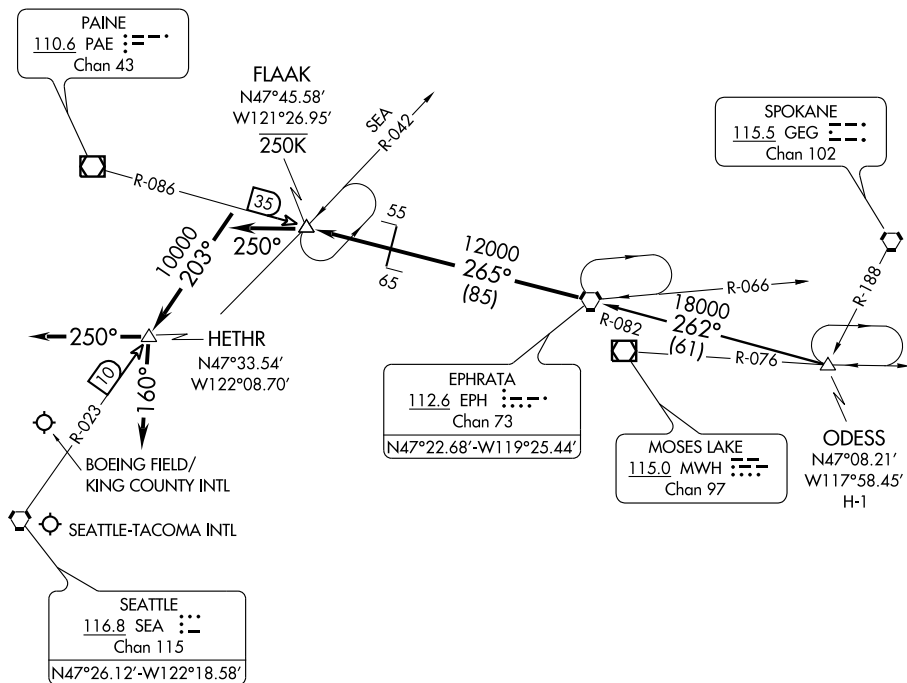
TAKE-OFF RUNWAYS 16C/R: Climb heading 160° and SEA R-161, thence. . .

. . .to cross NICHY/5 DME/RADAR at or above 3000, then right turn heading 250° to intercept SEA R-230 to ELMAA INT, then via (transition/assigned route), expect filed altitude/flight level 15 NM from SEA.

CORVALLIS TRANSITION (ELMAA8.CVO): From over ELMAA INT via YYJ R-157 and CVO R-340 to CVO VOR/DME.

HOQUIAM TRANSITION (ELMAA8.HQM): From over ELMAA INT via HQM R-049 to HQM VORTAC.

SEATTLE APP CON
123.9 338.2
SEATTLE-TACOMA ATIS
118.0
BOEING FIELD ATIS
127.75



NOTE: DME and RADAR required.

ODESS TRANSITION (ODESS.EPH6): From over ODESS INT via EPH R-082 to EPH VORTAC. Thence....

...From over EPH VORTAC via EPH R-265 and PAE R-086 to FLAAK INT. Then via heading 250° to intercept the SEA R-023, then via SEA R-023 to HETHR INT, thence....

LANDING NORTH: Heading 160° for vector to final approach course;

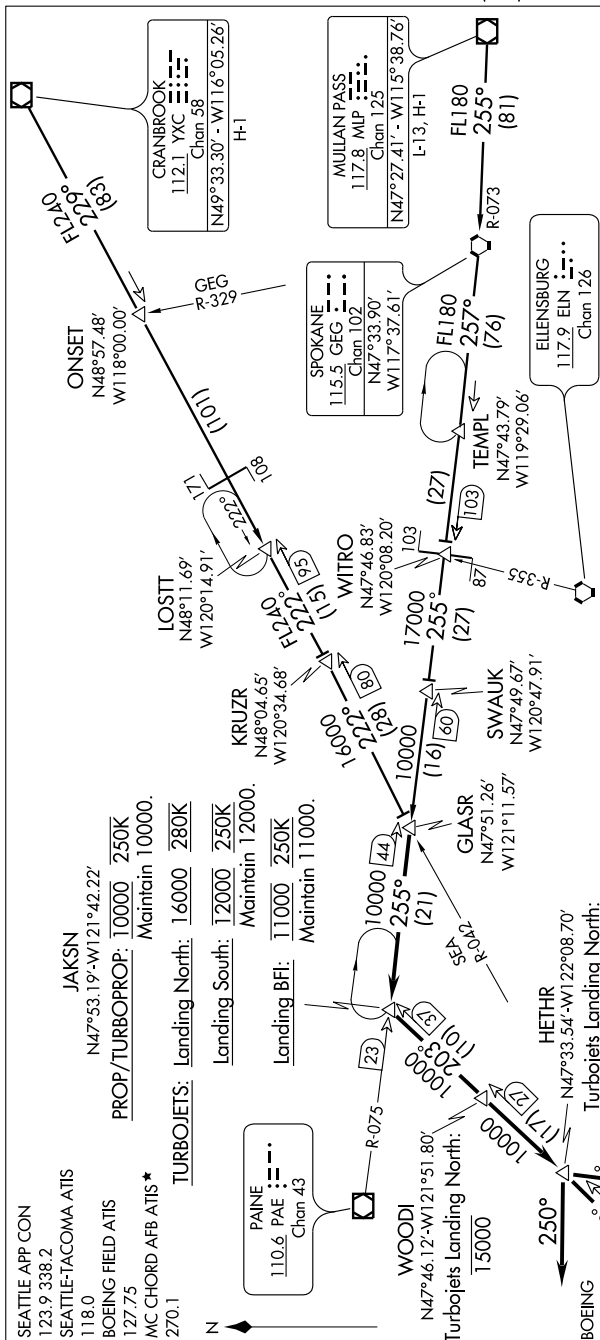
LANDING SOUTH: Heading 250° for vector to final approach course.

LOST COMMUNICATIONS: From over HETHR DME proceed direct SEA VORTAC.

GLASR SEVEN ARRIVAL

ST-582 (FAA)

SEATTLE, WASHINGTON



CRANBROOK TRANSITION (YXC GLASR7): From over YXC VOR/DME via YXC R-229 and SEA R-042 to GLASR INT. Thence....

MULLAN PASS TRANSITION (MLP GLASR7): From over MLP VOR/DME via MLP R-255 and GEG R-073 to GEG VORTAC, then via GEG R-257 and PAE R-075 to GLASR INT. Thence....

....from over GLASR/PAE 44 DME via PAE R-075 to JAKSN INT/PAE 23 DME, then via the SEA R-023 to WOODI/SEA 27 DME, then via SEA R-023 to HETHR/SEA 10 DME, Thence....

LANDING NORTH: Heading 160° for vectors to final approach course.

LANDING SOUTH: Heading 250° for vectors to final approach course.

LANDING McCHORD AFB: From over HETHR DME FIX, proceed direct SEA VORTAC.

LOST COMMUNICATIONS: From over HETHR DME FIX, proceed direct SEA VORTAC.

NW-1, 17 DEC 2009 to 14 JAN 2010

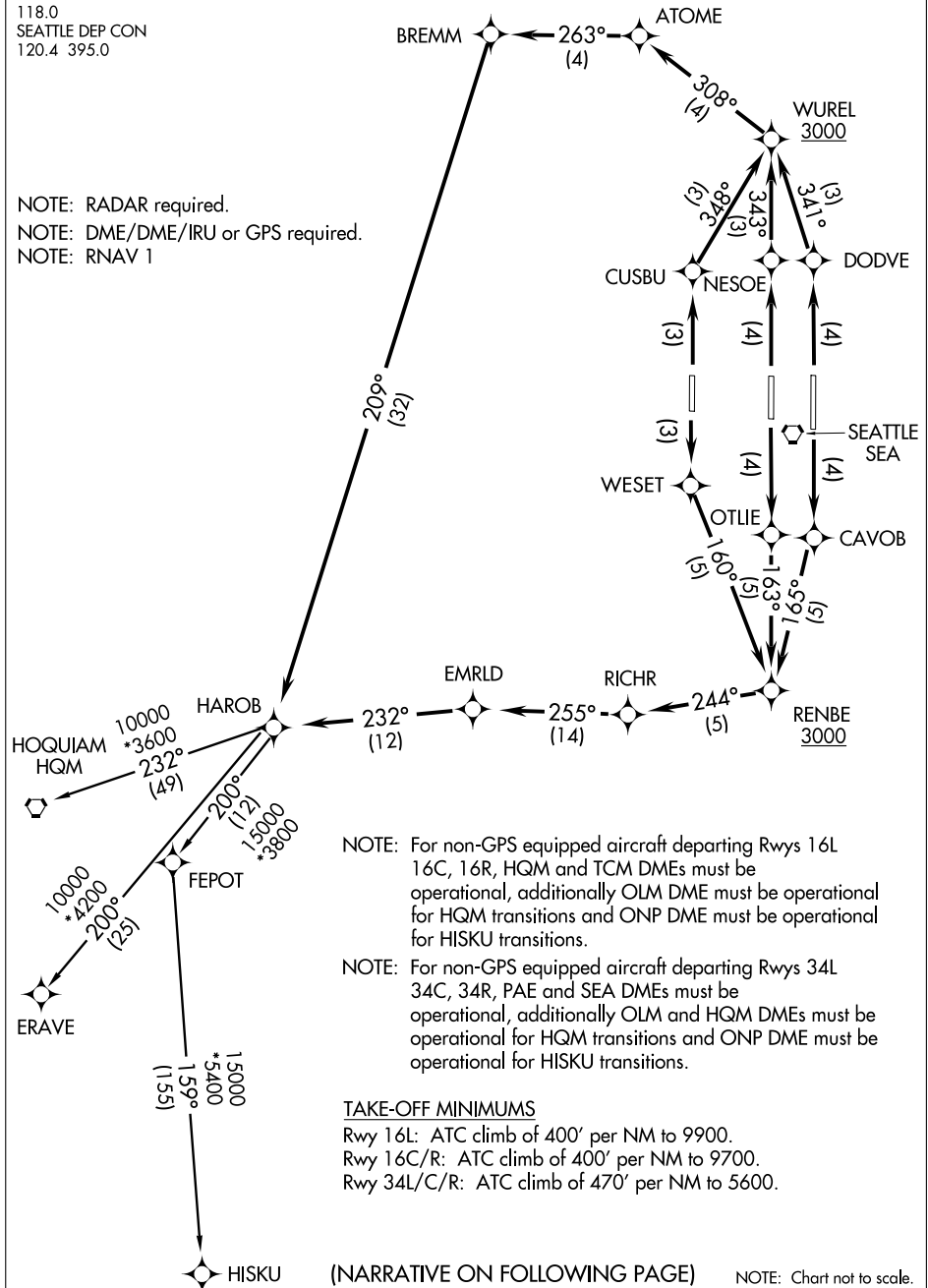
NOTE: Chart not to scale.

NOTE: DME and RADAR required.

HAROB THREE DEPARTURE (RNAV)

ATIS
118.0
SEATTLE DEP CON
120.4 395.0

NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1



HAROB THREE DEPARTURE (RNAV)



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 16L: Climb direct CAVOB, then via 165° track to cross RENBE at or above 3000, then via depicted route to HAROB, thence. . . .

TAKE-OFF RUNWAY 16C: Climb direct OTLIE, then via 163° track to cross RENBE at or above 3000, then via depicted route to HAROB, thence. . . .

TAKE-OFF RUNWAY 16R: Climb direct WESET, then via 160° track to cross RENBE at or above 3000, then via depicted route to HAROB, thence. . . .

TAKE-OFF RUNWAY 34L: Climb direct CUSBU, then via 348° track to cross WUREL at or above 3000, then via depicted route to HAROB, thence. . . .

TAKE-OFF RUNWAY 34C: Climb direct NESOE, then via 343° track to cross WUREL at or above 3000, then via depicted route to HAROB, thence. . . .

TAKE-OFF RUNWAY 34R: Climb direct DODVE, then via 341° track to cross WUREL at or above 3000, then via depicted route to HAROB, thence. . . .

. . . . via (transition). Maintain assigned altitude, expect filed altitude/flight level 15 NM from SEA VORTAC.

ERAVE TRANSITION (HAROB3.ERAVE)

FEPOT TRANSITION (HAROB3.FEPOT)

HISKU TRANSITION (HAROB3.HISKU)

HOQUIAM TRANSITION (HAROB3.HQM)

TAKE-OFF OBSTACLE NOTES

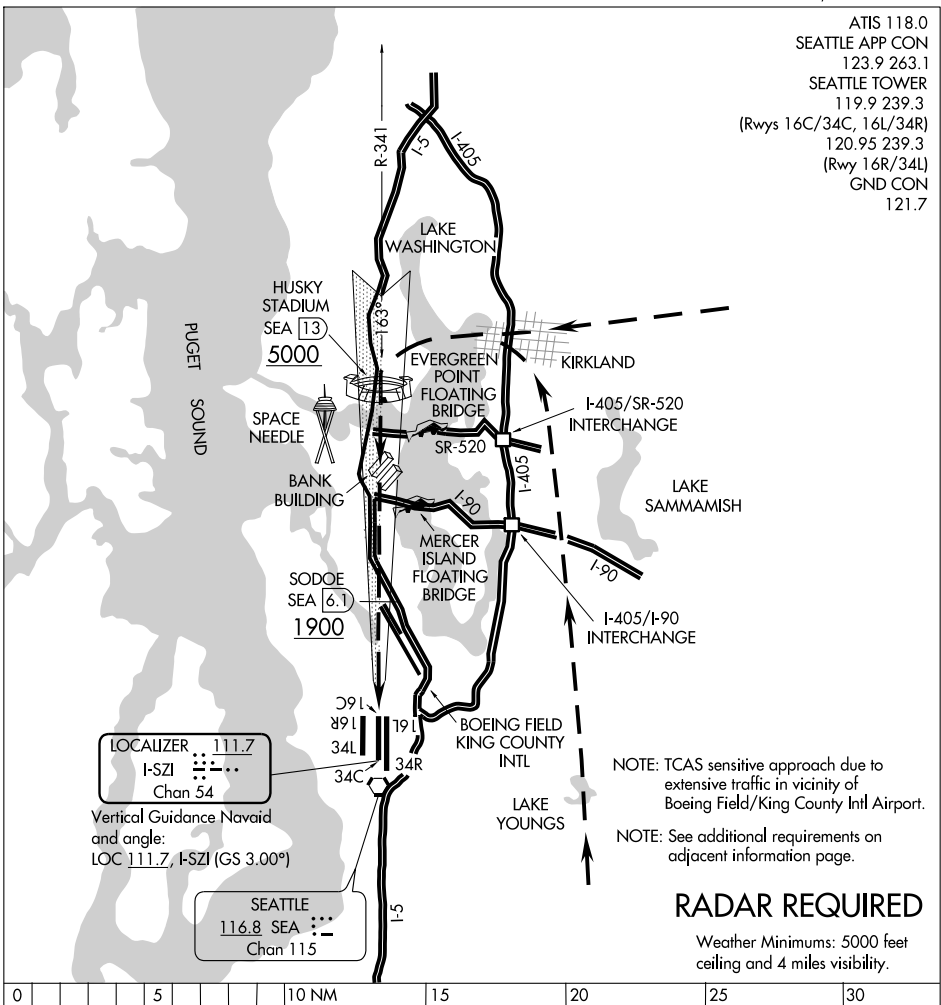
Rwy 16L: Trees beginning 2908' from DER, 1064' right of centerline, up to 100' AGL/476' MSL.

Rwy 16C: Trees beginning 4477' from DER, 484' right of centerline, up to 100' AGL/507' MSL.

Rwy 16R: Trees, antenna on building and light pole beginning 488' from DER, 436' left of centerline, up to 100' AGL/507' MSL. Trees beginning 1137' from DER, 587' right of centerline, up to 100' AGL/468' MSL.

Rwy 34L: Fence 189' from DER, 401' right of centerline, up to 12' AGL/420' MSL.

Trees beginning 4010' from DER, 857' left of centerline, up to 100' AGL/522' MSL.



HUSKY VISUAL APPROACH RWY 16C

When the ceiling is at least 5000' and visibility is at least 4 miles, aircraft may be vectored over Kirkland or Lake Youngs for a Husky Visual Runway 16C Approach. When cleared for a Husky Visual Approach; proceed inbound visually over Husky Stadium (via route depicted); intercept the Runway 16C localizer/SEA R-341 at 13 DME and complete a straight in visual approach to the airport.

SEATTLE-TACOMA INTL AIRPORT**ALERT NOTICE****ATTENTION ALL AIRCRAFT LANDING TO THE SOUTH:**

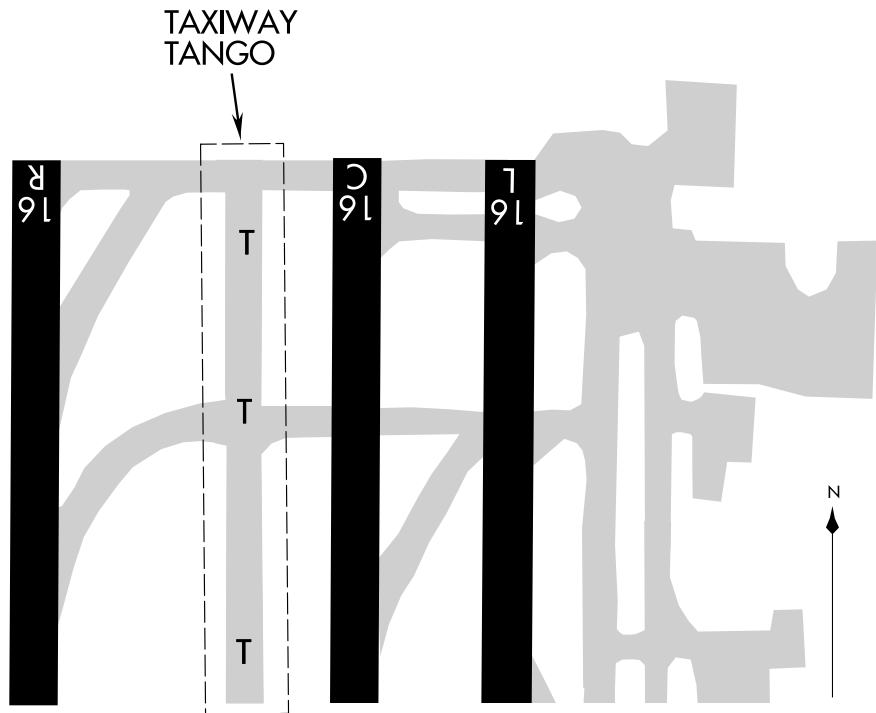
When transitioning from an instrument procedure to a visual approach to Runway 16C, verify that you are aligned for the intended landing Runway, not Taxiway Tango. Taxiway Tango is west and parallel to Runway 16C.

TRANSITION TO VISUAL:

Taxiway Tango has been mistaken for Runway 16C from the air during certain visibility conditions, i.e., wet runway, low sun angle reflections. Aircrews are advised to be aware of the proximity of the taxiway to Runway 16C and its runway-like appearance while on approach.

RECOMMENDATION:

Aircrews should use visual cues, e.g., approach lighting systems, REILs, when available, to confirm alignment with Runway 16C not Taxiway Tango. Additionally, it is recommended to track the localizer until the runway environment is visually verified.



ILS or LOC RWY 16C
SEATTLE-TACOMA INTL (SEA)

MISSED APPROACH: Climb heading 160° and SEA VORTAC R-161 to cross TEBNE/SEA 2.4 DME/RADAR at or below 2000, then climb to 5000 via SEA VORTAC R-161 to MILLT INT/SEA 11 DME/RADAR and hold, continue climb-in-hold to 5000.

DME or RADAR REQUIRED

Procedure NA for arrivals at PAE
VOR/DME via V23 northbound.

IAF PAINE
110.6 PAE ::-·
Chan 43

*6000
167° (10.9)

R-167 (IF)
WEMAT
I-SZI 18.2
PAE 10.9
RADAR

ERYKA
I-SZI 15.3
RADAR

MGNUM
I-SZI 12.4
RADAR

*5000
163° (2.9)

*4000
163° (2.9)

*3200
163° (2.4)

ANVIL
I-SZI 10
RADAR

1900
163° (3.9)

SODOE
I-SZI 6.1
RADAR

Boeing Field/
King County Intl

529±

IM

SEATTLE
116.8 SEA ::-·
Chan 115

10 NM

1729 Δ

2160 Δ

3149 Δ

2040

3020

MSA SEA 25 NM

081°

070°

340°

3400

6400

2200

ALTERNATE MISSED
APCH FIX

074°

254°

R-074

MC CHORD
TCM ::-·
109.6
Chan 33

MISSED
APCH
FIX

116.8 SEA
Chan 115

MILLT INT
SEA 11
RADAR

161°

34

225

LOCALIZER 111.7
I-SZI ::-·
Chan 54

ELEV 433

TDZ 430
89L 39L 19L

515 ±
163° 4.4 NM from FAF

TDZ 433
TWR 696

606
593

517

34L 34C 34R

8500 X 150
9426 X 150
11901 X 150

0.6% DOWN
0.4% DOWN
0.6% DOWN
0.8% UP
0.8% UP
0.8% UP

FAF to MAP 4.4 NM

HIRL all Rwy 16L, 16C, 16R and 34R

	Knots	60	90	120	150	180
Min:Sec	4:24	2:56	2:12	1:46	1:28	

CATEGORY	A	B	C	D
S-ILS 16C	630/18 200 (200-½)			
S-LOC 16C	760/24 330 (400-½)			760/40 330 (400-¾)
SIDESTEP 16L	760/50 327 (400-1)		760-1½ 327 (400-1½)	760-2 327 (400-2)
CIRCLING 16C	1000-1 567 (600-1)		1000-1½ 567 (600-1½)	1000-2 567 (600-2)

SEATTLE-TACOMA INTL AIRPORT**ALERT NOTICE****ATTENTION ALL AIRCRAFT LANDING TO THE SOUTH:**

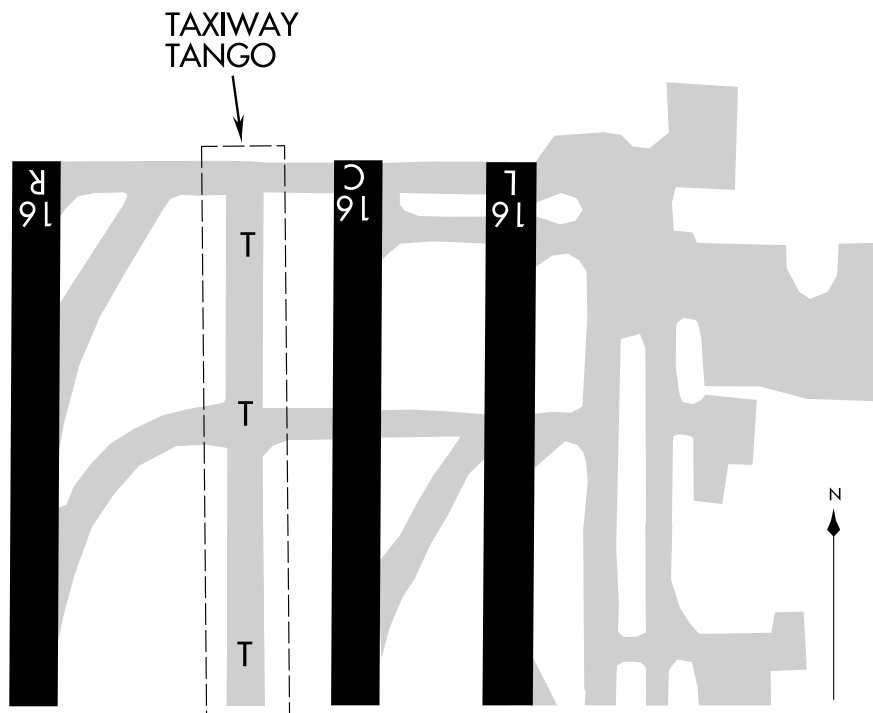
When transitioning from an instrument procedure to a visual approach to Runway 16C, verify you are aligned for the intended landing Runway, not Taxiway Tango. Taxiway Tango is west and parallel to Runway 16C.

TRANSITION TO VISUAL:

Taxiway Tango has been mistaken for Runway 16C from the air during certain visibility conditions, i.e., wet runway, low sun angle reflections. Aircrews are advised to be aware of the proximity of the taxiway to Runway 16C and its runway-like appearance while on approach.

RECOMMENDATION:


Aircrews should use visual cues, e.g., approach lighting systems, REILs, when available, to confirm alignment with Runway 16C not Taxiway Tango. Additionally, it is recommended when executing a segment of the ILS approach for a visual transition, track the localizer until the runway environment is visually verified.



LOC/DME I-SNQ 110.3 Chan 40	APP CRS 163°	Rwy Idg 11901 TDZE 433 Apt Elev 433
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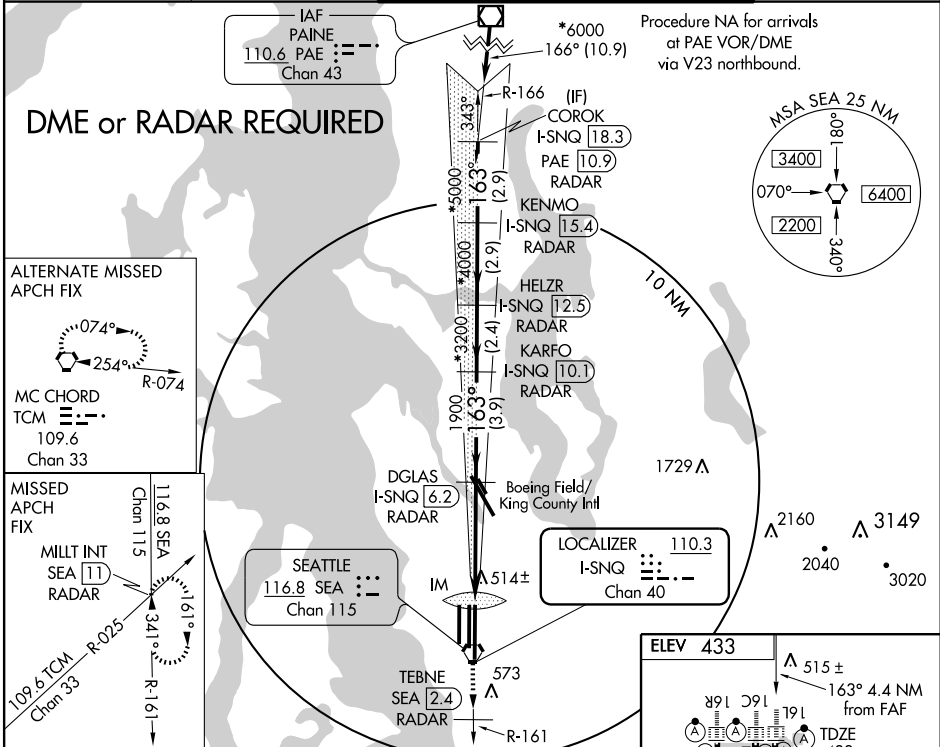
ILS or LOC RWY 16L

SEATTLE-TACOMA INTL (SEA)

<p>T DME or RADAR required. For inoperative ALSF-2, increase S-ILS 16L Cat. A visibility to RVR 5000.</p>	<p>ALSF-2</p> 	<p>MISSED APPROACH: Climb heading 165° and SEA VORTAC R-161 to cross TEBNE/SEA 2.4 DME/RADAR at or below 2000, then climb to 5000 via SEA VORTAC R-161 to MILLT INT/SEA 11 DME/RADAR and hold, continue climb-in-hold to 5000.</p>
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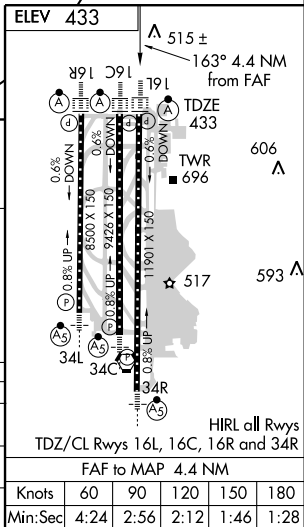
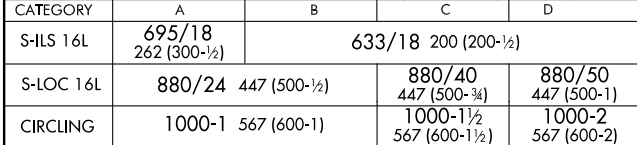
ATIS 118.0	SEATTLE APP CON 133.65 273.45	SEATTLE TOWER 119.9 239.3 (Rwys 16C/34C, 16L/34R) 120.95 239.3 (Rwy 16R/34L)	GND CON 121.7
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DME or RADAR REQUIRED



* When assigned by ATC, intercept glidepath at 3200 or 4000 or 5000 or 6000.

COROK I-SNQ 18.3 RADAR
 KENMO I-SNQ 15.4 RADAR
 HELZR I-SNQ 12.5 RADAR
 KARFO I-SNQ 10.1 RADAR
 165°
 116.8
 RADAR 2000
 SEA I-161
 SEA RADAR
 DGLAS I-SNQ 6.2 RADAR
 VVSI and ILS glidepath not coincident.
 I-SNQ 2.9
 I-SNQ 1.8
 IM
 *6000 163°
 *5000 *4000 *3200
 GS 3.00°
 TCH 54
 Procedure Turn NA
 1900
 1900
 2.9 NM 2.9 NM 2.4 NM 3.9 NM 3.3 NM 1.1 NM 0.1



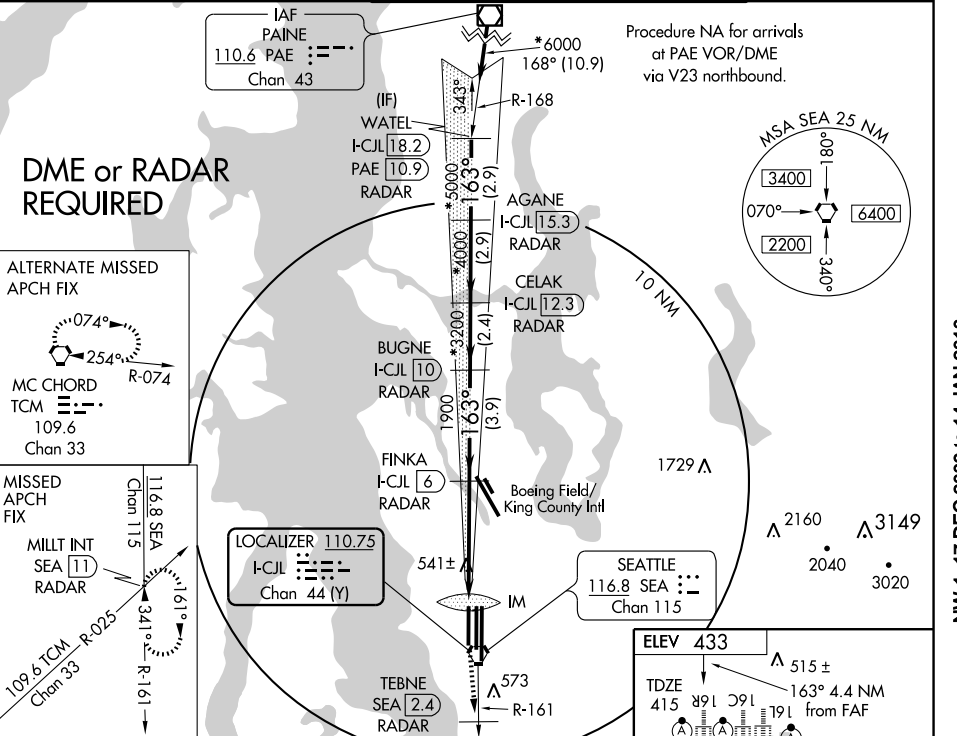
▼

DME or RADAR required.

ALSF-2

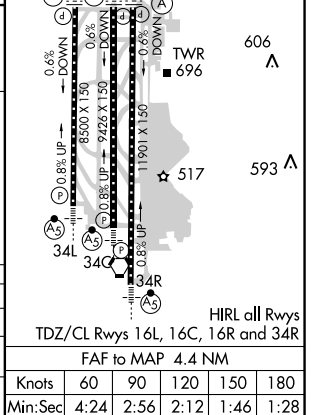
MISSED APPROACH: Climb heading 158° and SEA VORTAC R-161 to cross TEBNE/SEA 2.4 DME/RADAR at or below 2000, then climb to 5000 via SEA VORTAC R-161 to MILIT INT/SEA 11 DME/RADAR and hold, continue climb-in-hold to 5000.

ATIS 118.0	SEATTLE APP CON 133.65 273.45	SEATTLE TOWER 119.9 239.3 (Rwys 16C/34C, 16L/34R) 120.95 239.3 (Rwy 16R/34L)	GND CON 121.7
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* When assigned by ATC, intercept glidepath at 3200 or 4000 or 5000 or 6000.

	WATL I-CJL 18.2 RADAR	AGANE I-CJL 15.3 RADAR	CELAK I-CJL 12.3 RADAR	BUGNE I-CJL 10 RADAR	158°	SEA R-161 116.8	TEBNE SEA 2.4 RADAR 2000	5000 SEA R-161	MILIT INT SEA 11 RADAR
Procedure Turn NA									
	*6000	*5000	*4000	*3200					
GS 3.00° TCH 55					1900				
	2.9 NM	2.9 NM	2.4 NM	3.9 NM	3.4 NM	0.9	0.1		
CATEGORY	A	B	C	D					
S-ILS 16R	615/18 200 (200-½)								
S-LOC 16R	800/24 385 (400-½)							800/40 385 (400-¾)	
CIRCLING	1000-1 567 (600-1)				1000-1½ 567 (600-1½)			1000-2 567 (600-2)	



LOC/DME I-TUC 111.7 Chan 54	APP CRS 343°	Rwy 34C Idg 9426 TDZE 387 Apt Elev 433	Rwy 34R Idg 11901 TDZE 372 Apt Elev 433
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ILS or LOC RWY 34C

SEATTLE-TACOMA INTL (SEA)

▲ For inoperative MALSR, increase SIDESTEP 34R Cats. A and B visibility to RVR 6000.

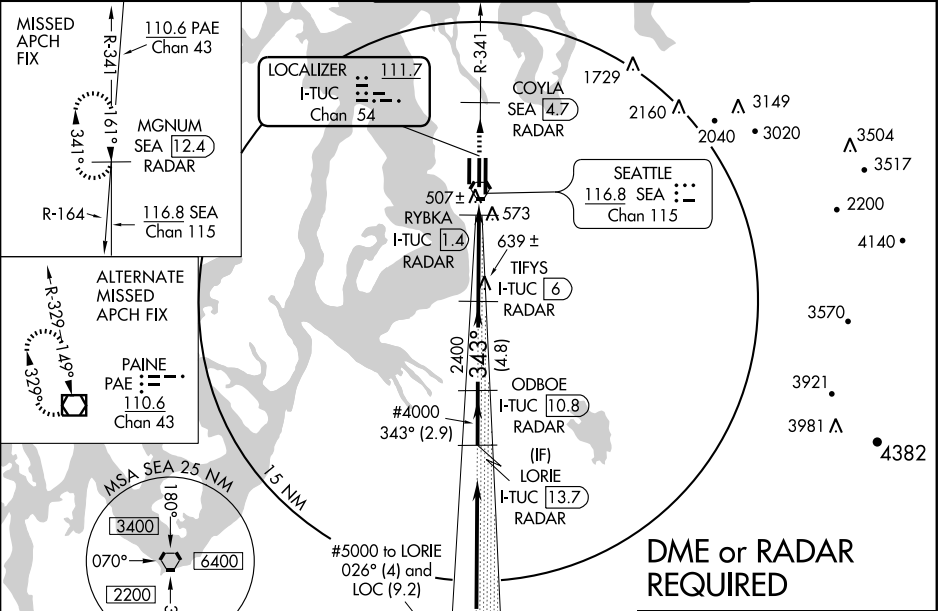
* RVR 1800 authorized with the use of FD or AP or HUD to DA.

DME or RADAR required.

MALSR
Rwy 34C/R

MISSED APPROACH: Climb heading 345° and SEA VORTAC R-341 to cross COYLA/SEA 4.7 DME/RADAR at or below 2000, then climb to 5000 via SEA VORTAC R-341 to MGNUM/SEA 12.4 DME/RADAR and hold, continue climb-in-hold to 5000.

ATIS 118.0	SEATTLE APP CON 133.65 273.45	SEATTLE TOWER 119.9 239.3 (Rwys 16C/34C, 16L/34R) 120.95 239.3 (Rwy 16R/34L)	GND CON 121.7
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Procedure NA for arrivals at CIDUG via V495 southbound.

DME or RADAR REQUIRED

SEA R-341 SEA 116.8 RADAR 2000	COYLA SEA 4.7 RADAR 2000	5000 SEA 12.4 RADAR	MGNUM SEA 12.4 RADAR	# When assigned by ATC, intercept glidepath at 4000 or 5000.	LORIE I-TUC 13.7 RADAR
VGSI and ILS glidepath not coincident. † LOC only					TIFYS I-TUC 6 RADAR
RYBKA I-TUC 1.4 RADAR					ODBOE I-TUC 10.8 RADAR
I-TUC 0.4					5000# 4000# Procedure Turn NA GS 3.00° TCH 56
0.5 1 NM 4.6 NM 4.8 NM 2.9 NM					

CATEGORY	A	B	C	D
S-ILS 34C		* 587/24 200 (200-½)		
S-LOC 34C		760/24	373 (400-½)	760/40 373 (400-¾)
SIDESTEP 34R	760/50	388 (400-1)	760/60 388 (400-1 ¼)	760-1¾ 388 (400-1 ¾)
CIRCLING	1000-1	567 (600-1)	1000-1½ 567 (600-1 ½)	1000-2 567 (600-2)

ELEV 433

515 ±

606

696

517

593

341 TDZE 340

34R TDZE 372

343° 6.1 NM from FAF

HIRL all Rwys TDZ/CL Rwys 16L, 16C, 16R and 34R

FAF to MAP 5.6 NM

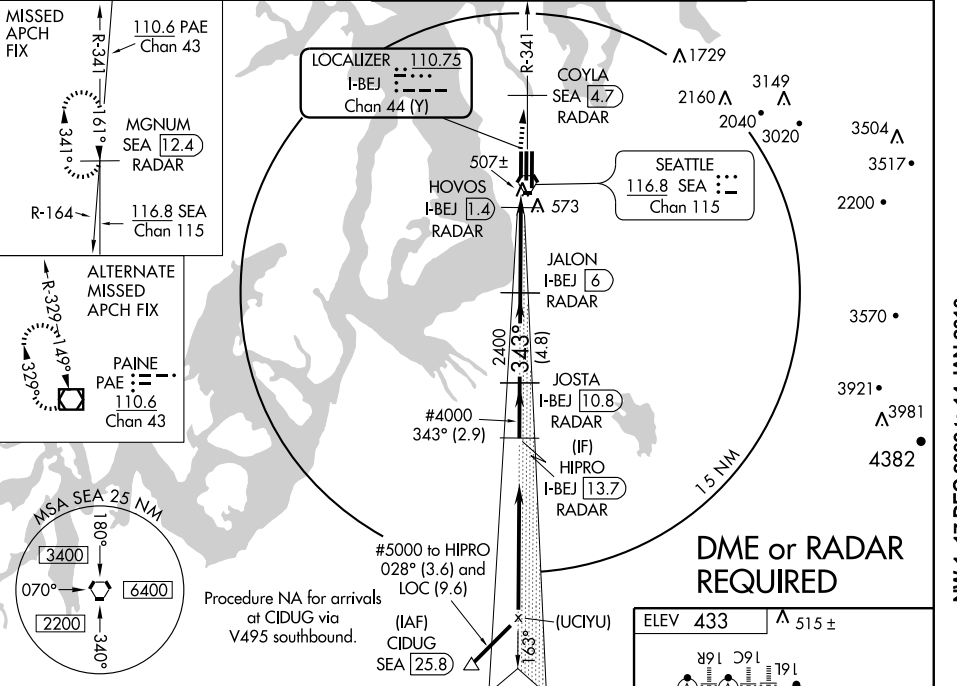
Knots	60	90	120	150	180
Min:Sec	5:36	3:44	2:48	2:14	1:52

DME or RADAR required.
* RVR 1800 authorized with the use of
FD or AP or HUD to DA.

MALSR

MISSED APPROACH: Climb heading 348° and SEA
VORTAC R-341 to cross COYLA/SEA 4.7 DME/RADAR
at or below 2000, then climb to 5000 via SEA VORTAC
R-341 to MGNUM/SEA 12.4 DME/ RADAR and hold,
continue climb-in-hold to 5000.

ATIS 118.0	SEATTLE APP CON 133.65 273.45	SEATTLE TOWER 119.9 239.3 (Rwys 16C/34C, 16L/34R) 120.95 239.3 (Rwy 16R/34L)	GND CON 121.7
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SEA R-341 SEA 116.8 RADAR 2000	COYLA SEA 4.7 RADAR 2000	5000 SEA R-341	MGNUM SEA 12.4 RADAR	# When assigned by ATC, intercept glidepath at 5000 or 4000.	JALON I-BEJ 6 RADAR	HOVOS I-BEJ 1.4 RADAR	JOSTA I-BEJ 10.8 RADAR	HIPRO I-BEJ 13.7 RADAR	Procedure Turn NA
VGSI and ILS glidepath not coincident. † LOC only									
CATEGORY	A	B	C	D					
S-ILS 34L	* 579/24 200 (200-½)								
S-LOC 34L	760/24 381 (400-½)				760/40 381 (400-¾)				
CIRCLING	1000-1 567 (600-1)		1000-1½ 567 (600-1½)		1000-2 567 (600-2)				

ELEV 433

515 ±

TDZE 379

343° 6.1 NM from FAF

HIRL all Rwys FAF to MAP 6.1 NM

606 593 517 696

TDZ/CL Rwys 16L, 16C, 16R and 34R

Knots	60	90	120	150	180
Min:Sec	6:06	4:04	3:03	2:26	2:02

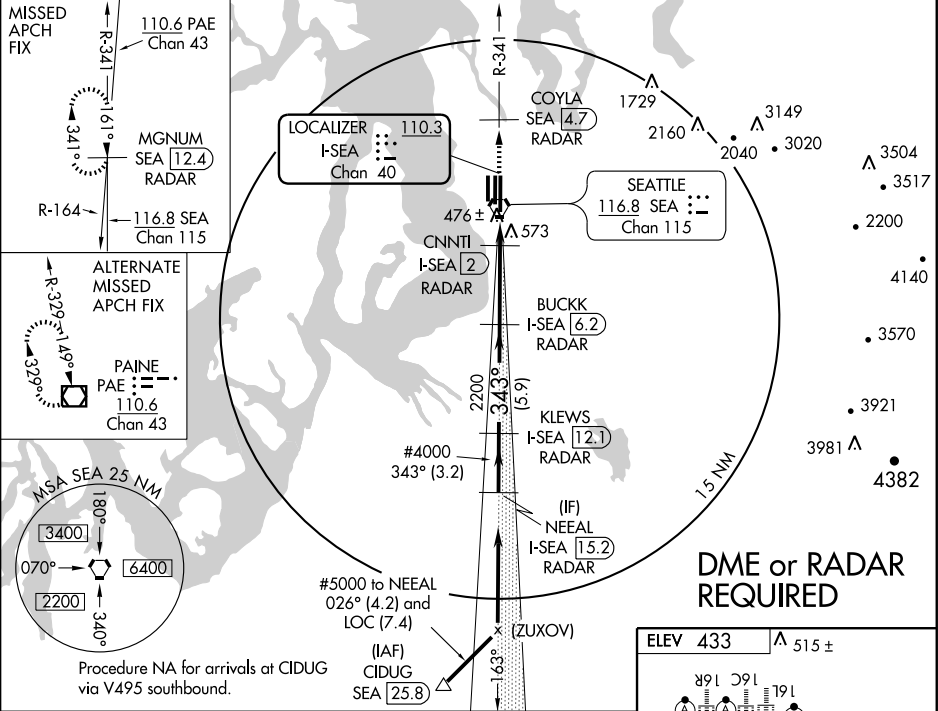
NW-1, 17 DEC 2009 to 14 JAN 2010

LOC/DME I-SEA 110.3 Chan 40	APP CRS 343°	Rwy 34R Idg TDZE Apt Elev 11901 372 433	Rwy 34C Idg TDZE Apt Elev 9426 387 433
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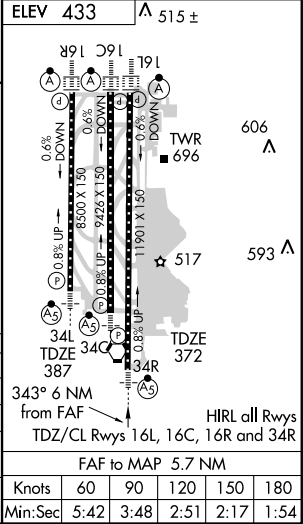
ILS or LOC RWY 34R
SEATTLE-TACOMA INTL (SEA)

✦ Inoperative table does not apply to SIDESTEP 34C, Cats. A and B. DME or RADAR required.	MALSR Rwy 34R/C 	MISSED APPROACH: Climb heading 341° and SEA VORTAC R-341 to cross COYLA/SEA 4.7 DME/RADAR at or below 2000, then climb to 5000 via SEA VORTAC R-341 to MGNUM/SEA 12.4 DME/RADAR and hold, continue climb-in-hold to 5000.
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ATIS 118.0	SEATTLE APP CON 133.65 273.45	SEATTLE TOWER 119.9 239.3 (Rwys 16C/34C, 16L/34R) 120.95 239.3 (Rwy 16R/34L)	GND CON 121.7
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↑ 341°	SEA R-341 116.8	COYLA SEA 4.7 RADAR 2000	5000 ↑ SEA R-341	MGNUM SEA 12.4 RADAR	Use I-SEA DME when on the localizer course. # When assigned by ATC, intercept glidepath at 4000 or 5000.
VGSI and ILS glidepath not coincident.					BUCKK I-SEA 6.2 RADAR
*LOC only					KLEWS I-SEA 12.1 RADAR
					NEEAL I-SEA 15.2 RADAR
					Procedure Turn NA
					5000#
					4000#
					GS 2.75° TCH 60
CATEGORY	A	B	C	D	
S-ILS 34R		572/18	200 (200-½)		
S-LOC 34R		720/24	348 (300-½)		
SIDESTEP 34C		760/50	373 (400-1)		760-1½ 373 (400-1½)
CIRCLING	1000-1	567 (600-1)	1000-1½ 567 (600-1½)	1000-2 567 (600-2)	

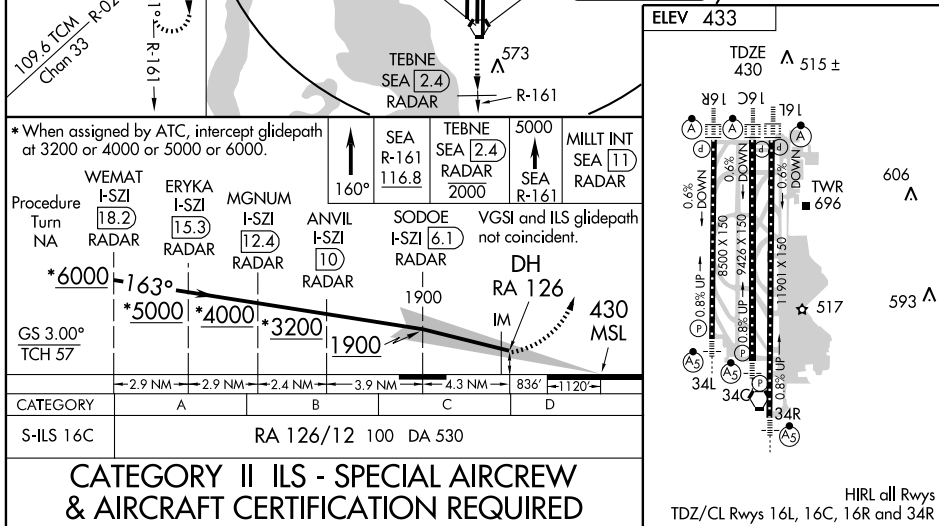
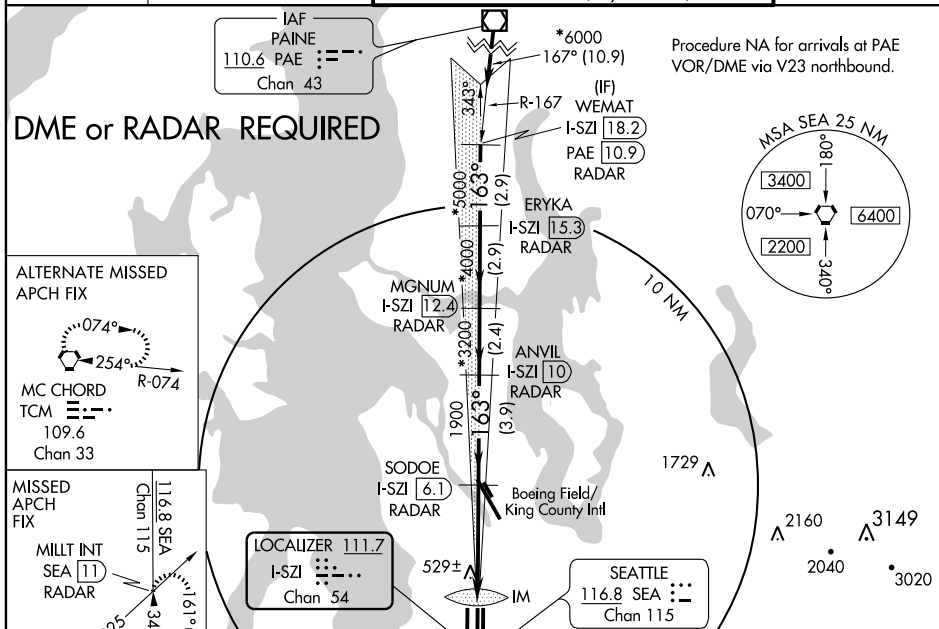


LOC/DME I-SZ 111.7 Chan 54	APP CRS 163°	Rwy Idg 9426 TDZE 430 Apt Elev 433
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ILS RWY 16C (CAT II)
SEATTLE-TACOMA INTL (SEA)

	DME or RADAR required.	ALSF-2 	MISSED APPROACH: Climb heading 160° and SEA VORTAC R-161 to cross TEBNE/SEA 2.4 DME/RADAR at or below 2000, then climb to 5000 via SEA VORTAC R-161 to MILIT INT/SEA 11 DME/RADAR and hold, continue climb-in-hold to 5000.
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ATIS 118.0	SEATTLE APP CON 133.65 273.45	SEATTLE TOWER 119.9 239.3 (Rwys 16C/34C, 16L/34R) 120.95 239.3 (Rwy 16R/34L)	GND CON 121.7
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LOC/DME I-SZI	APP CRS	Rwy Idg	9426
111.7	163°	TDZE	430
Chan 54		Apt Elev	433

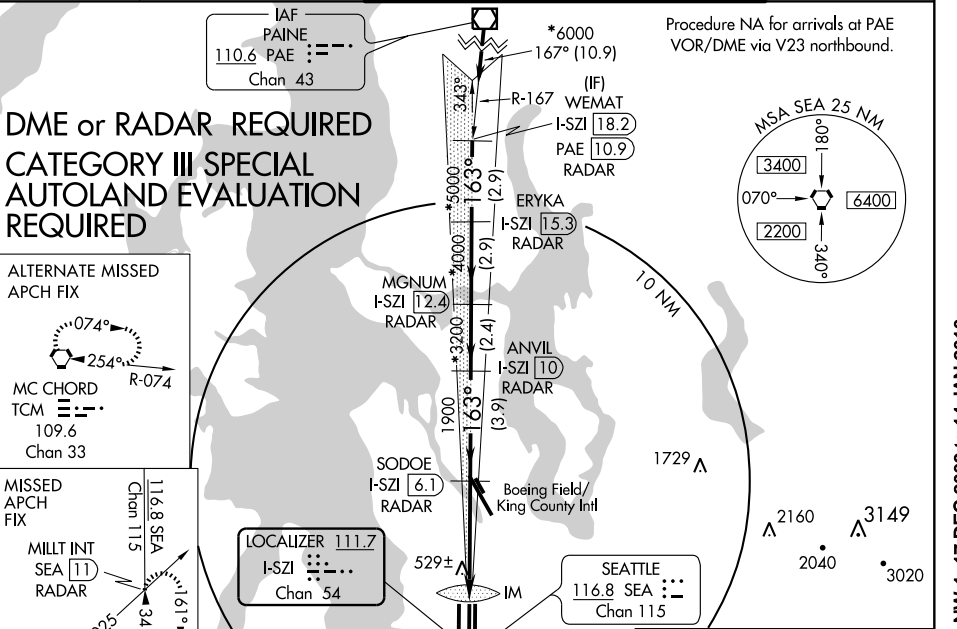
▽

DME or RADAR required.

ALSF-2

MISSED APPROACH: Climb heading 160° and SEA VORTAC R-161 to cross TEBNE/SEA 2.4 DME/RADAR at or below 2000, then climb to 5000 via SEA VORTAC R-161 to MILT INT/SEA 11 DME/RADAR and hold, continue climb-in-hold to 5000.

ATIS	SEATTLE APP CON	SEATTLE TOWER	GND CON
118.0	133.65 273.45	119.9 239.3 (Rwys 16C/34C, 16L/34R) 120.95 239.3 (Rwy 16R/34L)	121.7



* When assigned by ATC, intercept glidepath at 3200 or 4000 or 5000 or 6000.

WEMAT I-SZI 18.2 RADAR	ERYKA I-SZI 15.3 RADAR	MGNUM I-SZI 12.4 RADAR	ANVIL I-SZI 10 RADAR	SODOE I-SZI 6.1 RADAR	TEBNE SEA 2.4 RADAR	SEA R-161 116.8	MILT INT SEA 11 RADAR
Procedure Turn NA							VGSI and ILS glidepath not coincident.
*6000							430 MSL
GS 3.00° TCH 57							
-2.9 NM		-2.9 NM		-2.4 NM		-3.9 NM	
A		B		C		D	
S-ILS 16C		CAT IIIa		RVR 07			
S-ILS 16C		CAT IIIb		RVR 03			
S-ILS 16C		CAT IIIc		NA			

ELEV 433

CATEGORY III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

HIRL all Rwys TDZ/CL Rwys 16L, 16C, 16R and 34R

NW-1. 17 DEC 2009 to 14 JAN 2010

AL-582 (FAA)

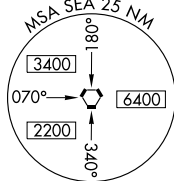
ILS RWY 16L (CAT II)
SEATTLE-TACOMA INTL (SEA)

ALSF-2

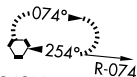
MISSED APPROACH: Climb heading 165° and SEA VORTAC R-161 to cross TEBNE/SEA 2.4 DME/RADAR at or below 2000, then climb to 5000 via SEA VORTAC R-161 to MILLT INT/SEA 11 DME/RADAR and hold. continue climb-in-hold to 5000.

DME or RADAR REQUIRED

Procedure NA for arrivals
at PAE VOR/DME
via V23 northbound.



ALTERNATE MISSED
APCH FIX



MC CHORD
TCM 
109.6
Chan 33

MISSED
APCH
FIX

SEATTLE
6.8 SEA :
Chan 115

LOCALIZER 110.3
I-SNQ
Chan 40

ELEV 433

* When assigned by ATC, intercept glidepath at 3200 or 4000 or 5000 or 6000.

COROK I-SNQ 18.3 RADAR
KENMO I-SNQ 15.4 RADAR
HELZR I-SNQ 12.5 RADAR
KARFO I-SNQ 10.1 RADAR

16.

SEA
R-161
116.8

TEBNE
EA 2.4
RADAR
2000

5000
↑
SEA
P-161

MILLT INT
SEA 11
RADAR

DGLAS
I-SNQ 6
RADAR

VGSI and ILS glidepath
not coincident.

CATEGORY	A	B	C	D
S-ILS 16L	NA	RA 125/12 100 DA 533		

CATEGORY II ILS - SPECIAL AIRCREW
& AIRCRAFT CERTIFICATION REQUIRED

HIRL all Rwys
TDZ/CL Rwys 16L, 16C, 16R and 34R

NW-1. 17 DEC 2009 to 14 JAN 2010

ILS RWY 16L (CAT III)
SEATTLE-TACOMA INTL (SEA)

MISSED APPROACH: Climb heading 165° and SEA VORTAC R-161 to cross TEBNE/SEA 2.4 DME/RADAR at or below 2000, then climb to 5000 via SEA VORTAC R-161 to MILLT INT/SEA 11 DME/RADAR and hold, continue climb-in-hold to 5000.

DME or RADAR REQUIRED
CATEGORY III SPECIAL
AUTOLAND EVALUATION
REQUIRED

MISSED
APCH
FIX

MILIT IN
SEA 11
RADAR

SEATTLE
6.8 SEA :
Chan 115

LOCALIZER 110.3
I-SNQ
Chan 40

ELEV 433

* When assigned by ATC, intercept glidepath at 3200 or 4000 or 5000 or 6000.

COROK
I-SNQ
18.3
RADAR

KENMC
I-SNQ
15.4
RADAR

HELZR
I-SNQR
12.5
RADAR

KARFO
I-SNG
10.1

165°

16.8

GLAS

NO 6

ADAR
2000

VGS
not

SEA
R-161
and ILS
incident

EA 11
ADAR

lidepath

Figure 1 is a radar plot showing the ship's position relative to a series of radar returns. The plot includes a heading line at 163 degrees and a distance scale from 2.9 NM to 10.8 NM. The ship's position is marked at 1900. The plot also shows a heading of 3.00 degrees and a track of 54 degrees. The radar returns are labeled with their respective distances: 6000, 5000, 4000, 3200, 1900, 1900, 529, and 433 MSL. The plot is titled "Radar Plot of the Ship's Position" and includes a note "Not Confident" at the top right.

CATEGORY	A	B	C	D
S-ILS 16L	NA		CAT IIIa	RVR 07
S-ILS 16L	NA		CAT IIIb	RVR 03
S-ILS 16L		CAT IIIc	NA	

CATEGORY III ILS - SPECIAL AIRCREW
& AIRCRAFT CERTIFICATION REQUIRED

HIRL all Rwys
TDZ/CL Rwys 16L, 16C, 16R and 34R

ILS RWY 16R (CAT III)
SEATTLE-TACOMA INTL (SEA)

DME or RADAR required.



MISSED APPROACH: Climb heading 158° and SEA VORTAC R-161 to cross TEBNE/SEA 2.4 DME/RADAR at or below 2000, then climb to 5000 via SEA VORTAC R-161 to MILLT INT/SEA 11 DME/RADAR and hold, continue climb-in-hold to 5000.

ATIS
118.0

SEATTLE APP CON
133.65 273.45

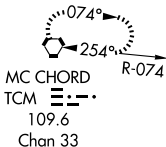
SEATTLE TOWER
119.9 239.3 (Rwys 16C/34C, 16L/34R)
120.95 239.3 (Rwy 16R/34L)

GND CON
121.7

DME or RADAR
REQUIRED

CATEGORY III SPECIAL
AUTOLAND
EVALUATION REQUIRED

ALTERNATE MISSED
APCH FIX

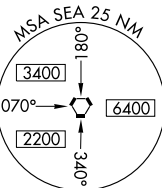


MISSED
APCH
FIX

MILIT INT
SEA 11
RADAR

LOCALIZER 110.75
I-CJL $\begin{smallmatrix} \cdot & \cdot & \cdot \\ \cdot & \cdot & \cdot \\ \cdot & \cdot & \cdot \end{smallmatrix}$
Chan 44 (Y)

Procedure NA for arrivals
at PAE VOR/DME
via V23 northbound.



1729 A

Λ^{2160} Λ^{3149}
 • •
 2040 3020

ELEV 433

TDZE
415

* When assigned by ATC, intercept glidepath at 3200 or 4000 or 5000 or 6000.

Procedure	WATEL
Turn	I-CJL
NA	18.2
	RADAR

AGANE
I-CJL
15.3
RADAR

CELAK
I-CJL
123

15
BUGNE
I-CJL 10

16.8	
FINKA	
I-CJL	6

RADAR
 2000
 VGS
 not c

SEA
R-161
I and ILS
coinciden

RADAR

glidepath

0.6%	DOWN
------	------

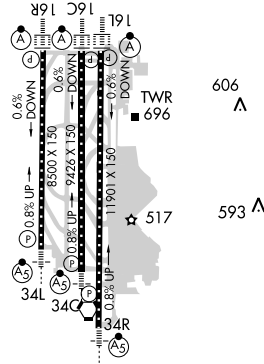
150 0,6%
150 ← DOWN

0.6%
DOWN

WR
696606
Λ

CATEGORY	A	B	C	D
S-ILS 16R		CAT IIIa	RVR 07	
S-ILS 16R		CAT IIIb	RVR 06	
S-ILS 16R		CAT IIIc	NA	

CATEGORY III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED



HIRL all Rwys
TDZ/CL Rwys 16L, 16C, 16R and 34R

LOC/DME I-TUC 111.7 Chan 54	APP CRS 343°	Rwy Idg TDZE Apt Elev 9426 387 433
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ILS RWY 34C (CAT II)

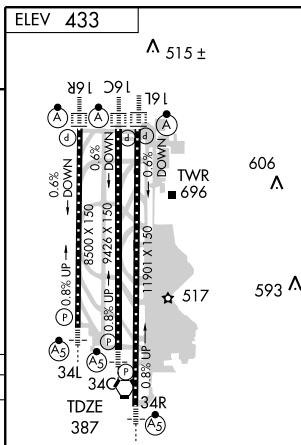
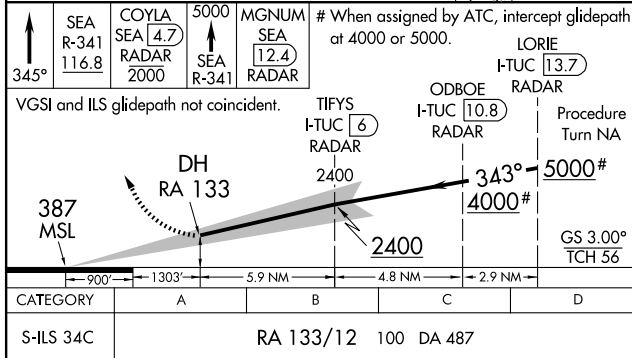
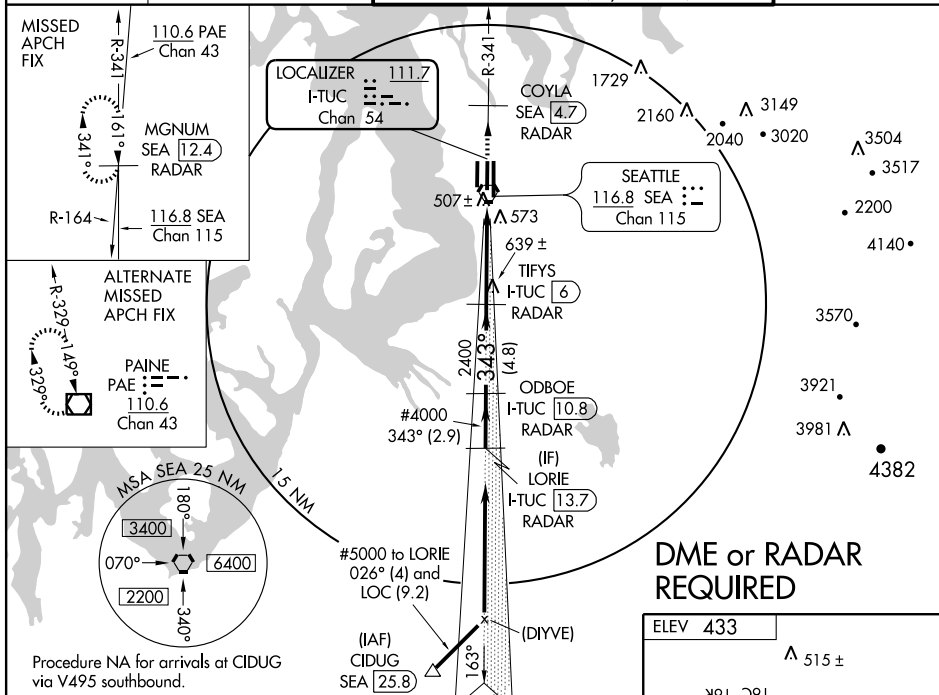
SEATTLE-TACOMA INTL (SEA)

Procedure does not meet ICAO standard for ALSF/TDZ/CL lighting systems. Authorization to conduct this approach requires specific OPSSPEC approval or LOA for this Rwy. DME or RADAR required.



MISSED APPROACH: Climb heading 345° and SEA VORTAC R-341 to cross COYLA/SEA 4.7 DME/RADAR at or below 2000, then climb to 5000 via SEA VORTAC R-341 to MGNUM/SEA 12.4 DME/RADAR and hold, continue climb-in-hold to 5000.

ATIS 118.0	SEATTLE APP CON 133.65 273.45	SEATTLE TOWER 119.9 239.3 (Rwys 16C/34C, 16L/34R) 120.95 239.3 (Rwy 16R/34L)	GND CON 121.7
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CATEGORY II ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

HIRL all Rwys
TDZ/CL Rwys 16L, 16C, 16R and 34R

AL-582 (FAA)

LOC/DME I-BEJ <u>110.75</u> Chan 44 (Y)	APP CRS 343°	Rwy Idg TDZE Apt Elev	8500 379 433
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ILS RWY 34L (CAT II)

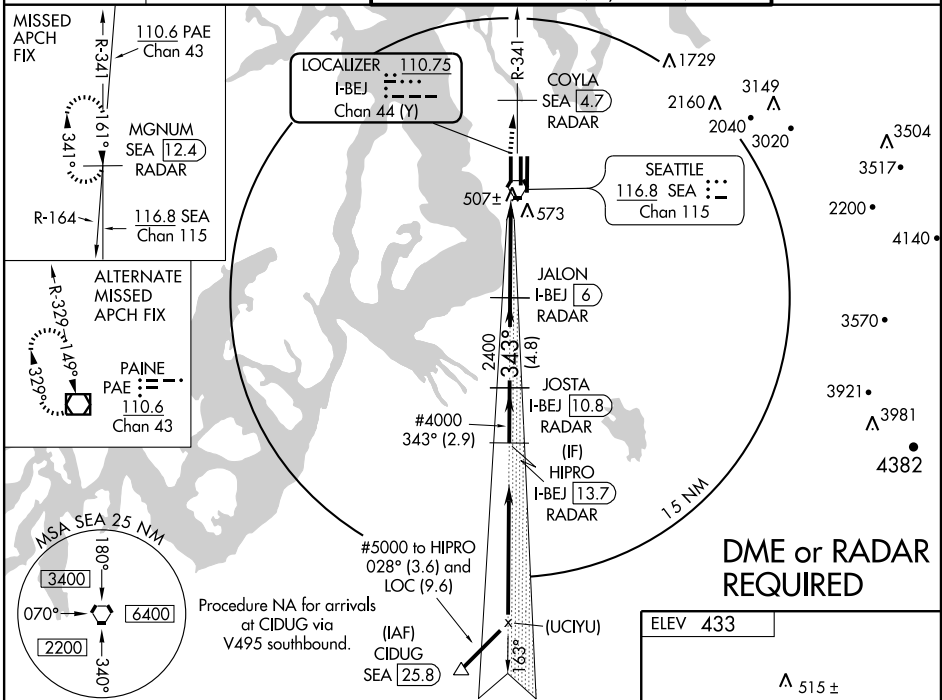
SEATTLE-TACOMA INTL (SEA)

T DME or RADAR required.
Procedure does not meet ICAO standard for
ALSF/TDZ/CL lighting systems. Authorization
to conduct this approach requires specific
OPSEEC approval or LOA for this Rwy.

MALSR

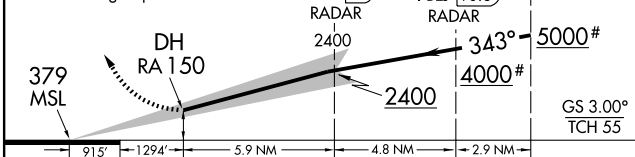
MISSED APPROACH: Climb heading 348° and SEA VORTAC R-341 to cross COYLA/SEA 4.7 DME/RADAR at or below 2000, then climb to 5000 via SEA VORTAC R-341 to MGNUM/SEA 12.4 DME/ RADAR and hold, continue climb-in-hold to 5000.

ATIS 118.0	SEATTLE APP CON 133.65 273.45	SEATTLE TOWER 119.9 239.3 (Rwys 16C/34C, 16L/34R) 120.95 239.3 (Rwy 16R/34L)	GND CON 121.7
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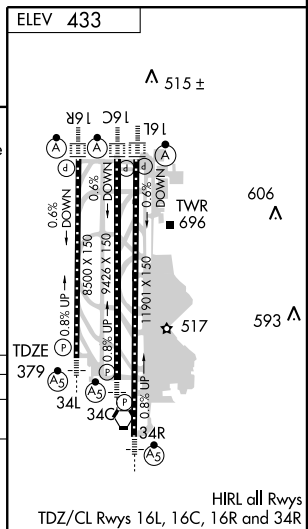
↑	SEA R-341	COYLA SEA 4.7	5000 ↑	MGNUM SEA	# When assigned by ATC, intercept glidepath at 5000 or 4000.	Procedure
---	--------------	------------------	-----------	--------------	--	-----------

348°	<u>116.8</u>	RADAR 2000	SEA R-341	<u>12.4</u>	RADAR	JALON	HIPRO	Turn NA
VGSI and ILS glidepath not coincident.				I-BEJ	<u>6</u>	JOSTA	I-BEJ <u>13.7</u>	RADAR
				I-BEJ	<u>10.8</u>			



CATEGORY	A	B	C	D
S-ILS 34L	RA 150/12 100 DA 479			

CATEGORY II ILS - SPECIAL AIRCREW
& AIRCRAFT CERTIFICATION REQUIRED



NW-1 17 DEC 2009 to 14 JAN 2010

AL-582 (FAA)

ILS RWY 34R (CAT II)
SEATTLE-TACOMA INTL (SEA)

MALSR

MISSED APPROACH: Climb heading 341° and SEA VORTAC R-341 to cross COYLA/SEA 4.7 DME/RADAR at or below 2000, then climb to 5000 via SEA VORTAC R-341 to MGNUM/SEA 12.4 DME/RADAR and hold, continue climb-in-hold to 5000.

DME or RADAR
REQUIRED

Procedure NA for arrivals at CIDUG
via V495 southbound.

VGSI and ILS glidepath not coincident.	BUCKK I-SEA 4.2	KLEWS I-SEA 12.1	I-SEA 15.2 RADAR	Procedure Turn
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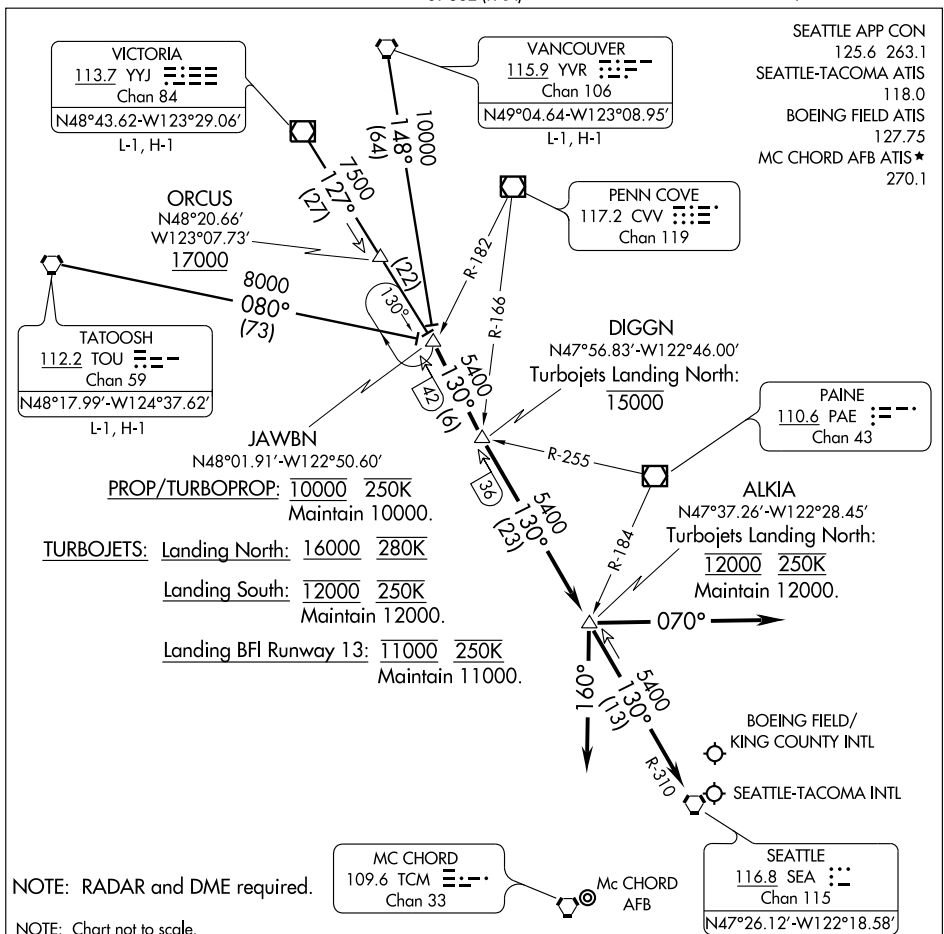
Diagram illustrating a flight path profile over a 60-second timeline. The path starts at 372 MSL, rises to 200 feet at 12 seconds, then to 2200 feet at 58 seconds, and finally to 5000 feet at 60 seconds. The path is labeled with 'DH RA 200', '2200', '343°', '4000#', and '5000#'. A dashed line indicates a 126° turn at 12 seconds. The timeline is divided into segments: 0-12s (126°), 12-58s (58NM), 58-60s (58NM), and 60-60s (32NM). The final segment is labeled 'GS 2.75° TCH 60'.

Diagram of the TWR 696 tower structure. The tower is a vertical lattice structure with three main sections. The top section is labeled "16C 16R" and "16C 17S". The middle section is labeled "8500 X 150". The bottom section is labeled "11901 X 150". The tower is supported by a base labeled "TDZE 372". The tower is surrounded by a fence labeled "517". The tower is located near a road labeled "606". The tower is situated in a field with a hill in the background. The diagram includes various labels for structural components and elevations.

CATEGORY II ILS - SPECIAL AIRCREW
& AIRCRAFT CERTIFICATION REQUIRED.

HIRL all Rwys
TDZ/CL Rwys 16L, 16C, 16R and 34R

NW-1 17 DEC 2009 to 14 JAN 2010



TATOOSH TRANSITION (TOU.JAWBN1): From over TOU VORTAC via TOU R-080 to JAWBN INT. Thence....

VANCOUVER TRANSITION (YVR.JAWBN1): From over YVR VORTAC via YVR R-148 to JAWBN INT. Thence....

VICTORIA TRANSITION (YYJ.JAWBN1): From over YYJ VOR/DME via YYJ R-127 to JAWBN INT. Thence....

....From over JAWBN INT/SEA 42 DME via SEA R-310 to DIGGN/SEA 36 DME then via SEA R-310 to ALKIA INT/SEA 13 DME, thence....

LANDING NORTH: Depart ALKIA INT heading 160° for vectors to final approach course.

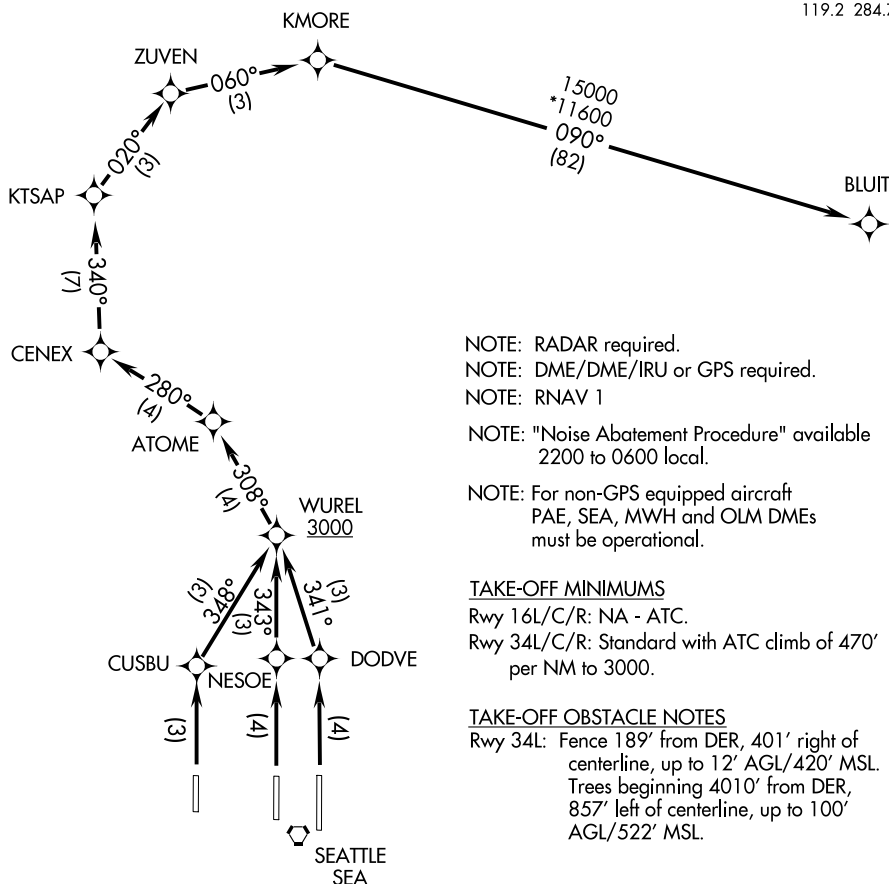
LANDING SOUTH: Depart ALKIA INT heading 070° for vectors to final approach course.

LANDING McCHORD AFB: After ALKIA INT proceed direct SEA VORTAC.

LOST COMMUNICATIONS: After ALKIA INT proceed direct SEA VORTAC.

KMORE TWO DEPARTURE (RNAV)

ATIS
118.0
SEATTLE DEP CON
119.2 284.7



NOTE: RADAR required.

NOTE: DME/DME/IRU or GPS required.

NOTE: RNAV 1

NOTE: "Noise Abatement Procedure" available
2200 to 0600 local.

NOTE: For non-GPS equipped aircraft
PAE, SEA, MWH and OLM DMEs
must be operational.

TAKE-OFF MINIMUMS

Rwy 16L/C/R: NA - ATC.

Rwy 34L/C/R: Standard with ATC climb of 470'
per NM to 3000.

TAKE-OFF OBSTACLE NOTES

Rwy 34L: Fence 189' from DER, 401' right of
centerline, up to 12' AGL/420' MSL.
Trees beginning 4010' from DER,
857' left of centerline, up to 100'
AGL/522' MSL.

NOTE: Chart not to scale.



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 34L: Climb direct CUSBU, then via 348° track to cross WUREL
at or above 3000, then via depicted route to BLUIT, thence. . .

TAKE-OFF RUNWAY 34C: Climb direct NESOE, then via 343° track to cross WUREL
at or above 3000, then via depicted route to BLUIT, thence. . .

TAKE-OFF RUNWAY 34R: Climb direct DODVE, then via 341° track to cross WUREL
at or above 3000, then via depicted route to BLUIT, thence. . .

. . . via assigned route. Maintain assigned altitude, expect filed altitude/flight level 15 NM
from SEA VORTAC.

KTSAP THREE DEPARTURE (RNAV)

TATOOSH
TOU

15000
*9400
274°
(93)

KTSAP

(7)

CENE

280

ATOME

WUREL
3000

CLISBU



DODVE

SEATTLE
SEA

NOTE: RADAR required.

NOTE: DME/DME/IRU or GPS required.

NOTE: RNAV 1

NOTE: "Noise Abatement Procedure" available
2200 to 0600 local.

NOTE: For non-GPS equipped aircraft PAE DME must be operational.

TAKE-OFF MINIMUMS

Rwy 16L/C/R: NA - ATC.

Rwy 34L/C/R: Standard with ATC climb of 470' per NM to 3000.

TAKE-OFF OBSTACLE NOTES

Rwy 34L: Fence 189' from DER, 401' right of centerline, up to 12' AGL/420' MSL. Trees beginning 4010' from DER, 857' left of centerline, up to 100' AGL/522' MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 34L: Climb direct CUSBU, then via 348° track to cross WUREL at or above 3000, then via depicted route to TOU VORTAC, thence. . .

TAKE-OFF RUNWAY 34C: Climb direct NESOE, then via 343° track to cross WUREL at or above 3000, then via depicted route to TOU VORTAC, thence. . .

TAKE-OFF RUNWAY 34R: Climb direct DODVE, then via 341° track to cross WUREL at or above 3000, then via depicted route to TOU VORTAC, thence. . .

...via assigned route. Maintain assigned altitude, expect filed altitude/flight level
15 NM from SEA VORTAC.

ATIS
118.0
P CON
284.7

NW-1. 17 DEC 2009 to 14 JAN 2010

MOUNTAIN SIX DEPARTURE

SL-582 (FAA)

SEATTLE-TACOMA INTL (SEA)
SEATTLE, WASHINGTON

ATIS
118.0
SEATTLE DEP CON
119.2 284.7

VANCOUVER
115.9 YVR :
Chan 106
N49°04.64'
W123°08.95'
L-1, H-1

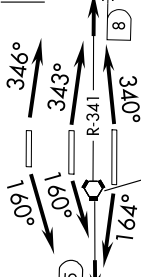
PRINCETON
113.9 YDC :
Chan 86
N49°22.89'
W120°22.42'
H-1

WHATCOM
113.0 HUH :
Chan 77
N48°56.72'
W122°34.76'
L-1, H-1

PAINE
110.6 PAE :
Chan 43
N47°55.19'
W122°16.67'
L-1, H-1

CRANBROOK
112.1 YXC :
Chan 58
N49°33.30'
W116°05.27'
H-1

NEZUG
N47°34.13'
W122°18.58'
4000



SEATTLE
116.8 SEA :
Chan 115
N47°26.12'
W122°18.58'
L-1, H-1

NICHY
N47°21.13'
W122°18.58'
3000

ELLENSBURG
117.9 ELN :
Chan 126
N47°01.46'
W120°27.51'
L-13, H-1

EPHRATA
112.6 EPH :
Chan 73
N47°22.68'
W119°25.44'
L-13, H-1

SPOKANE
115.5 GEG :
Chan 102
N47°33.90'
W117°37.61'
L-13, H-1

MULLAN PASS
117.8 MLP :
Chan 125
N47°27.41'
W115°38.76'
L-13, H-1

MOSES LAKE
115.0 MWH :
Chan 97
N47°12.65'
W119°19.01'
L-13, H-1

YAKIMA
116.0 YKM :
Chan 107
N46°34.22'
W120°26.68'
L-13, H-1

PASCO
108.4 PSC :
Chan 21
N46°15.78'
W119°06.94'
L-13

NOTE: RADAR and DME required.

TAKE-OFF MINIMUMS

Rwys 16L/C/R, 34 L/C/R: Standard.
Rwy 16L: ATC climb of 560' per NM to 3000.
Rwy 16C: ATC climb of 515' per NM to 3000.
Rwy 16R: ATC climb of 500' per NM to 3000.
Rwys 34L/C/R: ATC climb of 580' per NM to 4000.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

NW-1, 17 DEC 2009 to 14 JAN 2010



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 16L: Climb heading 164° and SEA R-161 to cross NICHY at or above 3000, then left turn heading 070° for radar vectors to assigned route, thence. . . .

TAKE-OFF RUNWAYS 16C/R: Climb heading 160° and SEA R-161 to cross NICHY at or above 3000, then left turn heading 070° for radar vectors to assigned route, thence. . . .

TAKE-OFF RUNWAY 34L: Climb heading 346° and SEA R-341 to cross NEZUG at or above 4000, then right turn heading 070° for radar vectors to assigned route, thence. . . .

TAKE-OFF RUNWAY 34C: Climb heading 343° and SEA R-341 to cross NEZUG at or above 4000, then right turn heading 070° for radar vectors to assigned route, thence. . . .

TAKE-OFF RUNWAY 34R: Climb heading 340° and SEA R-341 to cross NEZUG at or above 4000, then right turn heading 070° for radar vectors to assigned route, thence. . . .

. . . .Maintain assigned altitude, expect filed altitude/flight level 15 NM from SEA.

LOST COMMUNICATIONS: If no contact with ATC leaving 4000', proceed direct SEA VORTAC, then proceed on course.

TAKE-OFF OBSTACLE NOTES

Rwy 16L: Trees beginning 2908' from DER, 1064' right of centerline, up to 100' AGL/476' MSL.

Rwy 16C: Trees beginning 4477' from DER, 484' right of centerline, up to 100' AGL/507' MSL.

Rwy 16R: Trees, antenna on building and light pole beginning 488' from DER, 436' left of centerline, up to 100' AGL/507' MSL. Trees beginning 1137' from DER, 587' right of centerline, up to 100' AGL/468' MSL.

Rwy 34L: Fence 189' from DER, 401' right of centerline, up to 12' AGL/468' MSL.

Trees beginning 4010' from DER, 857' left of centerline, up to 100' AGL/522' MSL.

OLYMPIA SIX ARRIVAL

ST-582 (FAA)

SEATTLE, WASHINGTON

SEATTLE APP CON

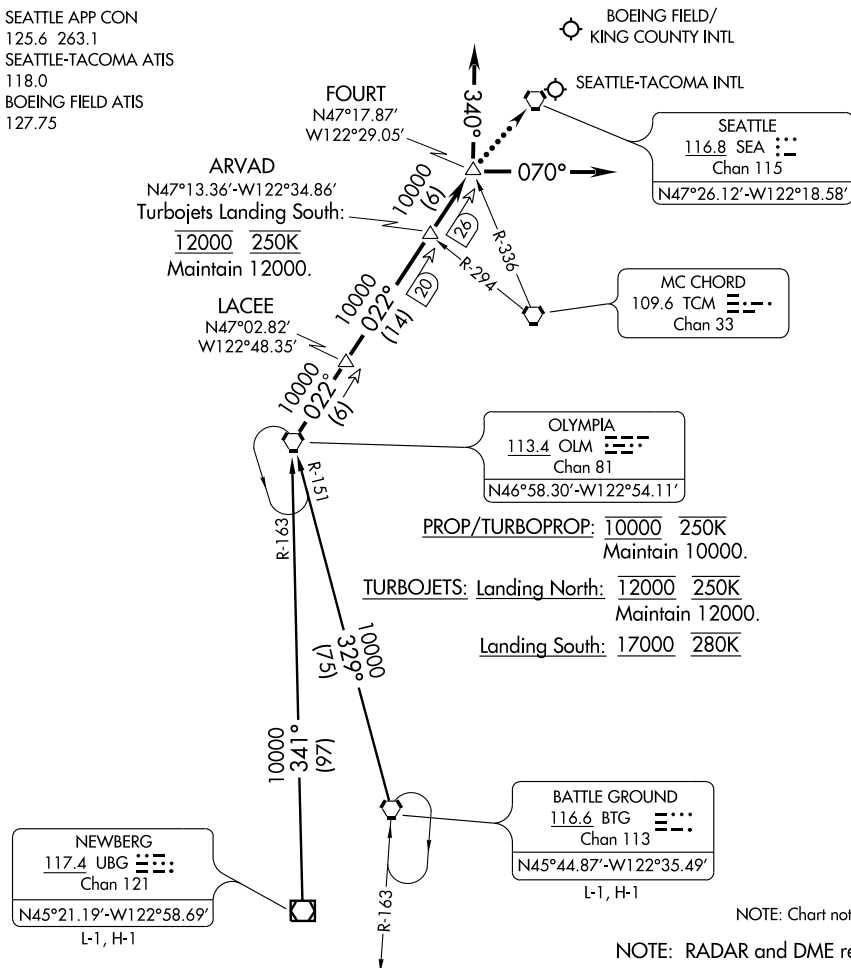
125.6 263.1

SEATTLE-TACOMA ATIS

118.0

BOEING FIELD ATIS

127.75



NOTE: Chart not to scale.

NOTE: RADAR and DME required.

BATTLE GROUND TRANSITION (BTG.OLM6): From over BTG VORTAC via BTG R-329 and OLM R-151 to OLM VORTAC. Thence....

NEWBERG TRANSITION (UBG.OLM6): From over UBG VOR/DME via UBG R-341 and OLM R-163 to OLM VORTAC. Thence....

....From over OLM VORTAC via OLM R-022 to LACEE/OLM 6 DME, then via OLM R-022 to ARVAD INT/OLM 20 DME, then via OLM R-022 to FOURT INT/OLM 26 DME, thence...

LANDING NORTH: Depart FOURT INT/OLM 26 DME heading 070° for vectors to final approach course.

LANDING SOUTH: Depart FOURT INT/OLM 26 DME heading 340° for vectors to final approach course.

LOST COMMUNICATIONS: From over FOURT INT/OLM 26 DME, proceed direct SEA VORTAC.

WAAS CH 61010 W16B	APP CRS 163°	Rwy Idg 9426 TDZE 430 Apt Elev 433
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RNAV (GPS) RWY 16C

SEATTLE-TACOMA INTL (SEA)

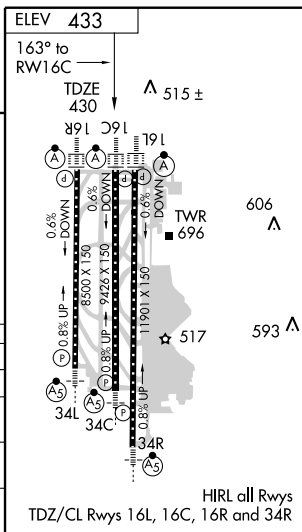
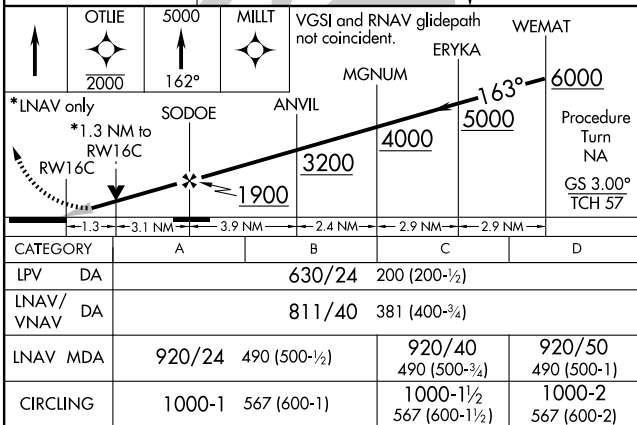
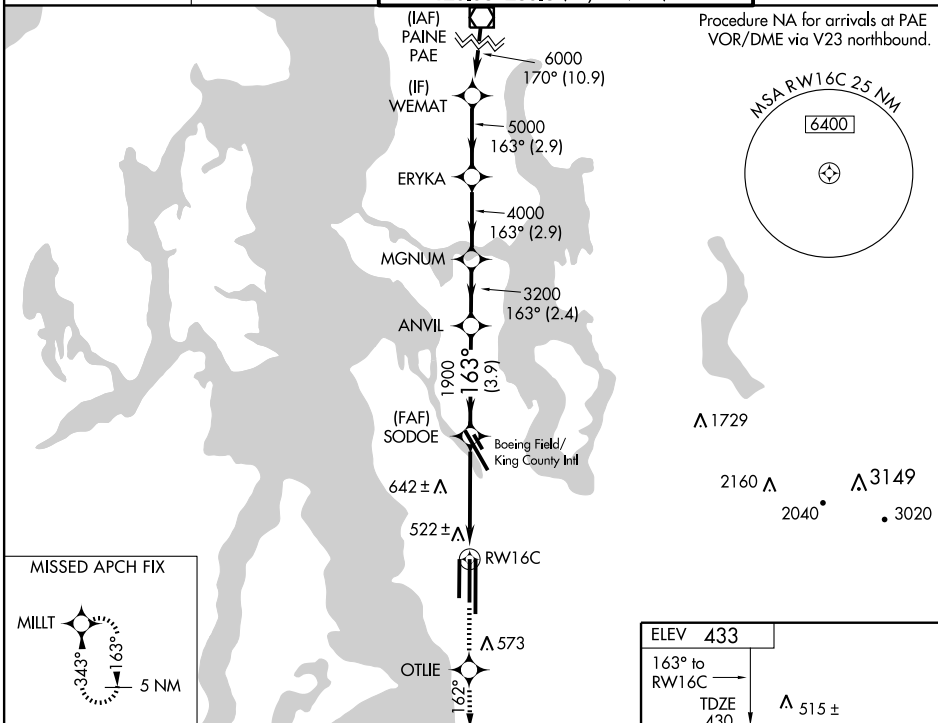
T For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 47°C (116°F).
DME/DME RNP-0.3 NA.
See additional requirements on adjacent information page.

ALSF-2



MISSED APPROACH: Climb direct OTLIE to cross OTLIE at or below 2000, then climb to 5000 via track 162° to MILIT and hold, continue climb-in-hold to 5000.

ATIS 118.0	SEATTLE APP CON 133.65 273.45	SEATTLE TOWER 119.9 239.3 (Rwys 16C/34C, 16L/34R) 120.95 239.3 (Rwy 16R/34L)	GND CON 121.7
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SEATTLE-TACOMA INTL AIRPORT**ALERT NOTICE****ATTENTION ALL AIRCRAFT LANDING TO THE SOUTH:**

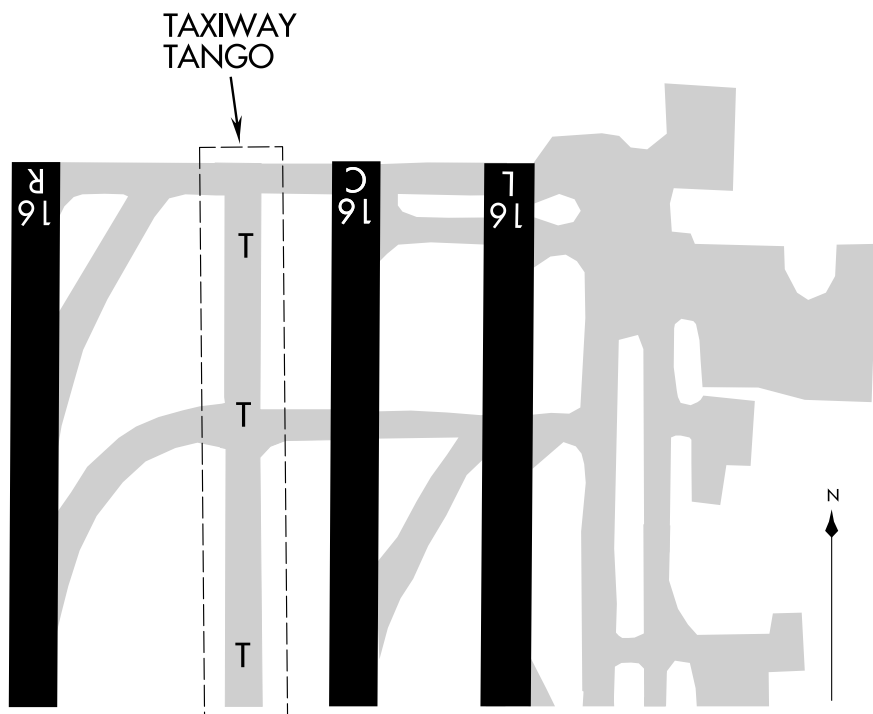
When transitioning from an instrument procedure to a visual approach to Runway 16C, verify you are aligned for the intended landing Runway, not Taxiway Tango. Taxiway Tango is west and parallel to Runway 16C.

TRANSITION TO VISUAL:

Taxiway Tango has been mistaken for Runway 16C from the air during certain visibility conditions, i.e., wet runway, low sun angle reflections. Aircrews are advised to be aware of the proximity of the taxiway to Runway 16C and its runway-like appearance while on approach.

RECOMMENDATION:

Aircrews should use visual cues, e.g., approach lighting systems, REILs, when available, to confirm alignment with Runway 16C not Taxiway Tango. Additionally, it is recommended when executing a segment of the ILS approach for a visual transition, track the localizer until the runway environment is visually verified.



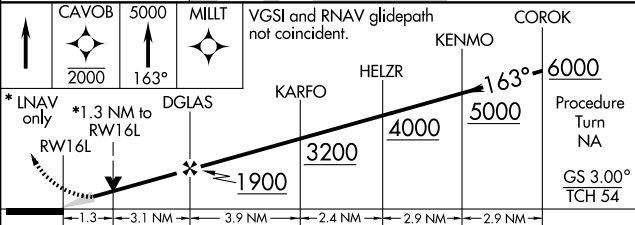
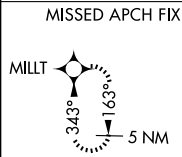
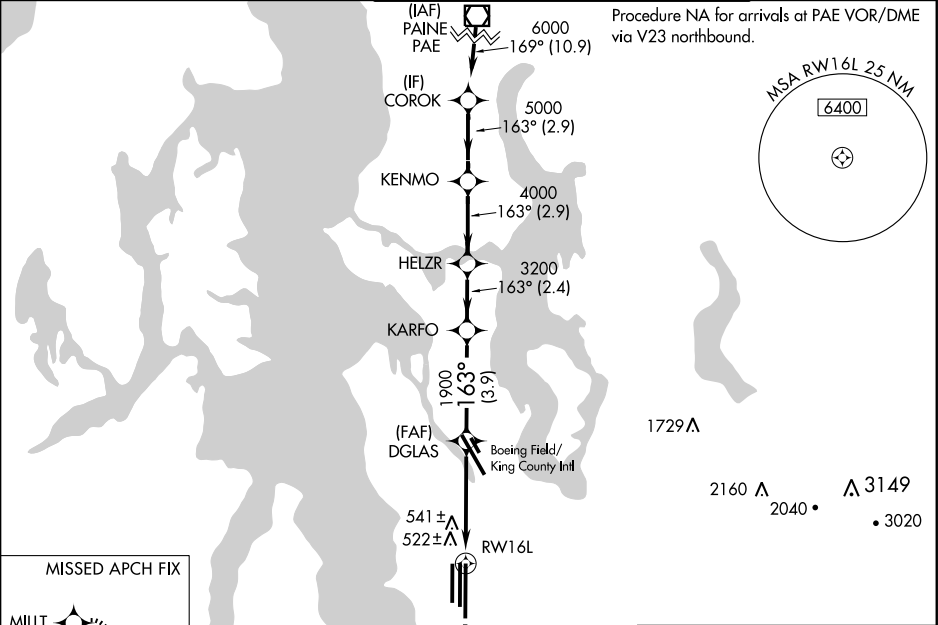
WAAS CH 63202 W16A	APP CRS 163°	Rwy Idg 11901 TDZE 433 Apt Elev 433
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RNAV (GPS) RWY 16L

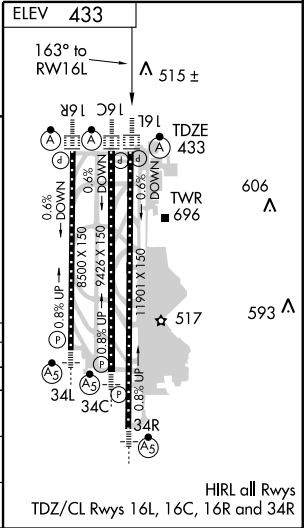
SEATTLE-TACOMA INTL (SEA)

⚠ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 47°C (116°F). DME/DME RNP -0.3 NA. For inoperative ALSF-2, increase LPV all Cats. visibility to RVR 5000.	ALSF-2 	MISSED APPROACH: Climb direct CAVOB to cross CAVOB at or below 2000, then climb to 5000 via track 163° to MILLT and hold, continue climb-in-hold to 5000.
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ATIS 118.0	SEATTLE APP CON 133.65 273.45	SEATTLE TOWER 119.9 239.3 (Rwys 16C/34C, 16L/34R) 120.95 239.3 (Rwy 16R/34L)	GND CON 121.7
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CATEGORY	A	B	C	D
LPV DA	729/24		296 (300-½)	
LNAV/VNAV DA	811/40		378 (400-¾)	
LNAV MDA	920/24	487 (500-½)	920/40 487 (500-¾)	920/50 487 (500-1)
CIRCLING	1000-1	567 (600-1)	1000-1½ 567 (600-1½)	1000-2 567 (600-2)



WAAS CH 86910 W16D	APP CRS 163°	Rwy Idg 8500 TDZE 415 Apt Elev 433
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RNAV (GPS) RWY 16R

SEATTLE-TACOMA INTL (SEA)

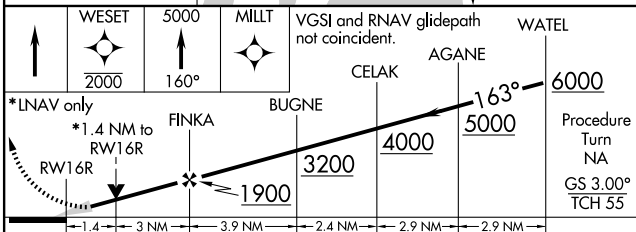
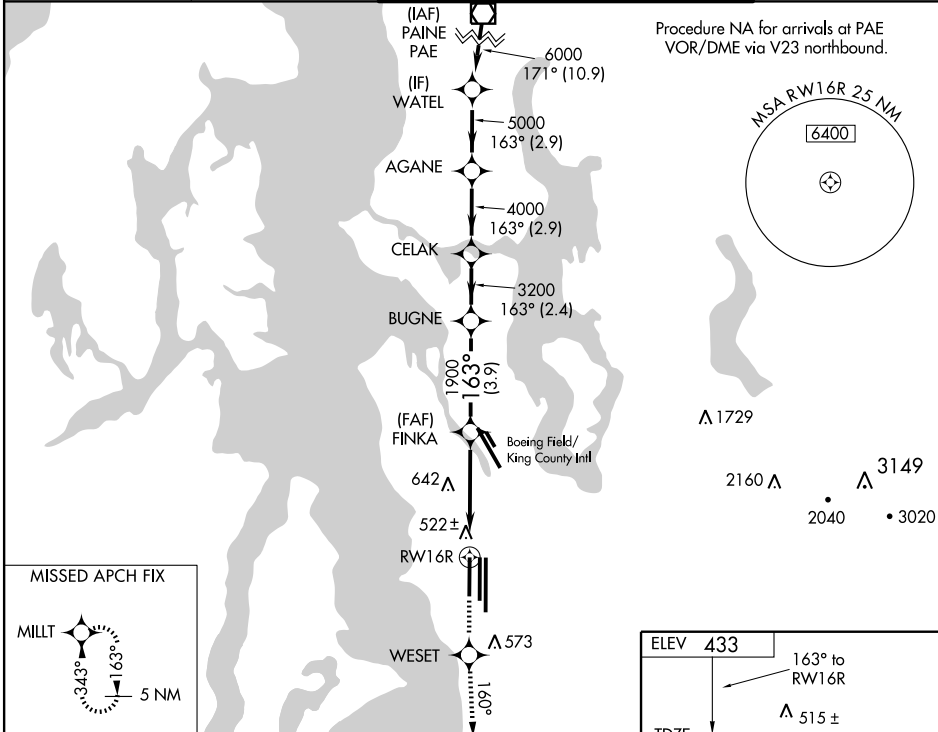
T For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 47°C (116°F).
DME/DME RNP-0.3 NA.

ALSF-2

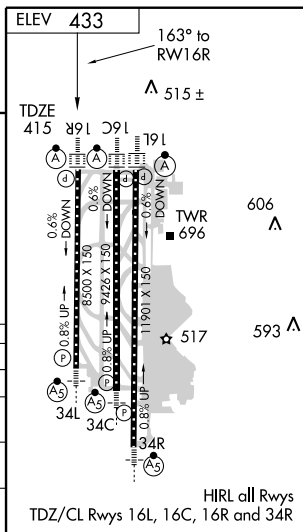


MISSED APPROACH: Climb direct WESET to cross WESET at or below 2000, then climb to 5000 via track 160° to MILT and hold, continue climb-in-hold to 5000.

ATIS 118.0	SEATTLE APP CON 133.65 273.45	SEATTLE TOWER 119.9 239.3 (Rwys 16C/34C, 16L/34R) 120.95 239.3 (Rwy 16R/34L)	GND CON 121.7
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CATEGORY		A	B	C	D
LPV	DA	615/24		200 (200-½)	
INAV/ VNAV	DA	808/40		393 (400-¾)	
INAV	MDA	920/24 505 (500-½)		920/50 505 (500-1)	
CIRCLING		1000-1 567 (600-1)		1000-1½ 567 (600-1½)	1000-2 567 (600-2)



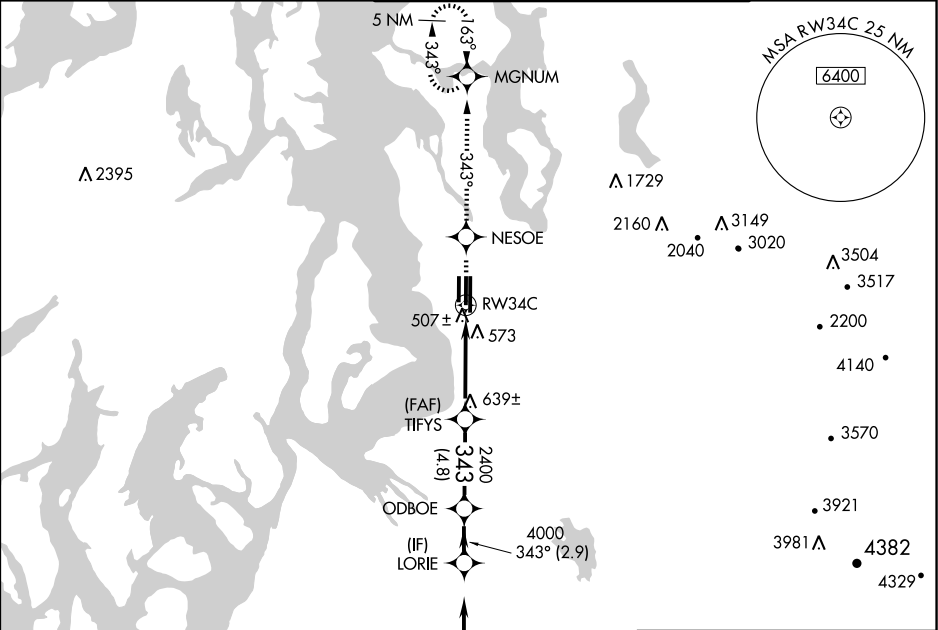
WAAS CH 77710 W34B	APP CRS 343°	Rwy Idg TDZE 387 Apt Elev 433
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



RNAV (GPS) RWY 34C

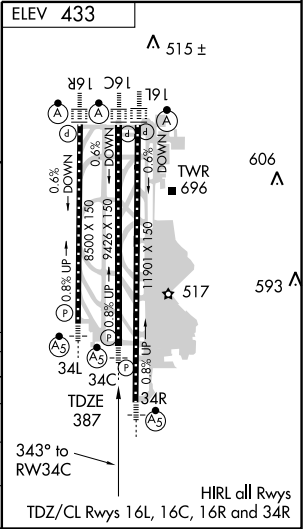
SEATTLE-TACOMA INTL (SEA)

▼ For inoperative MALS, increase LPV all Cats. visibility to RVR 6000. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP -0.3 NA.	MALS 	MISSED APPROACH: Climb direct NESOE to cross NESOE at or below 2000, then climb to 5000 via track 343° to MGNUM and hold, continue climb-in-hold to 5000.
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ATIS 118.0	SEATTLE APP CON 133.65 273.45	SEATTLE TOWER 119.9 239.3 (Rwys 16C/34C, 16L/34R) 120.95 239.3 (Rwy 16R/34L)	GND CON 121.7
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NESOE		5000		MGNUM		VGSi and RNAV glidepath not coincident.		LORIE		Procedure Turn NA	
											
2000		343°		1.5 NM to RWY 34C		2400		343°		5000	
* LNAV only		* LNAV only		* LNAV only		* LNAV only		* LNAV only		* LNAV only	
1.5 NM		4.6 NM		4.8 NM		2.9 NM		GS 3.00°		TCH 56	
CATEGORY	A		B		C		D				
LPV	DA		741/40		354 (400-¾)						
LNAV/VNAV	DA		790/50		403 (400-1)						
LNAV MDA	900/24		513 (500-½)		900/50		513 (500-1)		900/60		513 (500-1 ¼)
CIRCLING	1000-1		567 (600-1)		1000-1 ½		567 (600-1 ½)		1000-2		567 (600-2)



RNAV (GPS) RWY 34L

SEATTLE-TACOMA INTL (SEA)

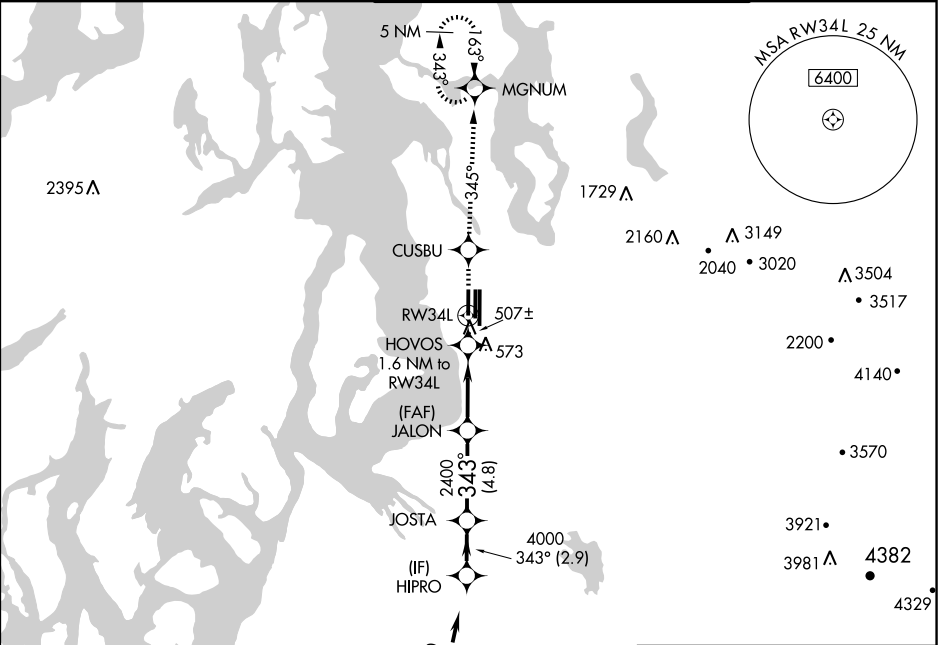
WAAS CH 45810 W34D	APP CRS 343°	Rwy Idg TDZE Apt Elev	8500 379 433
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⚠ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F).
DME/DME RNP -0.3 NA.

MALSR

MISSED APPROACH: Climb direct CUSBU to cross CUSBU at or below 2000, then climb to 5000 via track 345° to MGNUM and hold, continue climb-in-hold to 5000.

ATIS 118.0	SEATTLE APP CON 133.65 273.45	SEATTLE TOWER 119.9 239.3 (Rwys 16C/34C, 16L/34R) 120.95 239.3 (Rwy 16R/34L)	GND CON 121.7
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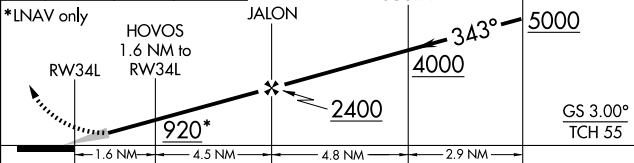
Procedure NA for arrivals at CIDUG via V495 southbound.

CUSBU 2000

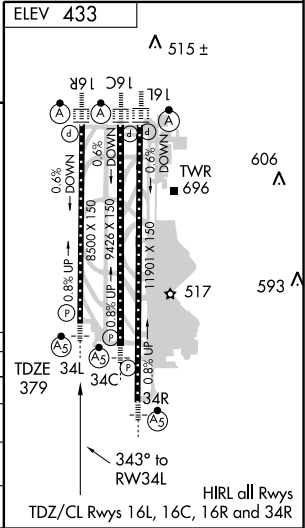
5000 345°

MGNUM

VGSI and RNAV glidepath not coincident. Procedure Turn NA



CATEGORY	A	B	C	D
LPV DA	579/24 200 (200-½)			
LNAV/VNAV DA	792/50 413 (400-1)			
LNAV MDA	860/24 481 (500-½)	860/40 481 (500-¾)	860/50 481 (500-1)	
CIRCLING	1000-1 567 (600-1)	1000-1½ 567 (600-1½)	1000-2 567 (600-2)	



RNAV (GPS) RWY 34R

SEATTLE-TACOMA INTL (SEA)

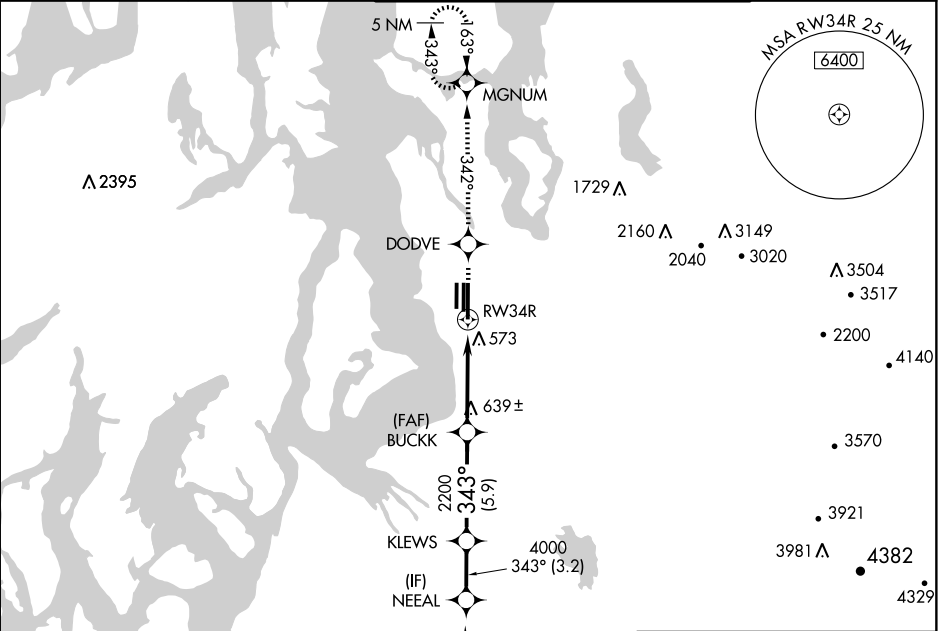
WAAS CH 42710 W34A	APP CRS 343°	Rwy Idg 11901 TDZE 372 Apt Elev 433
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For inoperative MALS, increase LPV all Cats. visibility to RVR 5000. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1.5°C (5°F) or above 54°C (130°F). DME/DME RNP -0.3 NA.

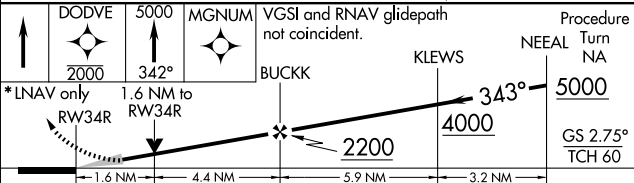
MALS

MISSED APPROACH: Climb direct DODVE to cross DODVE at or below 2000, then climb to 5000 via track 342° to MGNUM and hold, continue climb-in-hold to 5000.

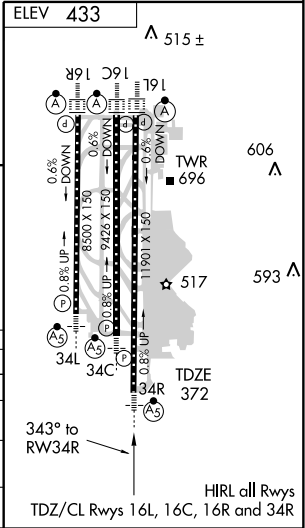
ATIS 118.0	SEATTLE APP CON 133.65 273.45	SEATTLE TOWER 119.9 239.3 (Rwys 16C/34C, 16L/34R) 120.95 239.3 (Rwy 16R/34L)	GND CON 121.7
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Procedure NA for arrivals at CIDUG via V495 southbound.



CATEGORY	A	B	C	D
LPV DA	622/24 250 (200-½)			
LNAV/VNAV DA	869-1½ 497 (500-1½)			
LNAV MDA	900/24 528 (500-½)	900/50 528 (500-1)	900/60 528 (500-1¼)	
CIRCLING	1000-1 567 (600-1)	1000-1½ 567 (600-1½)	1000-2 567 (600-2)	

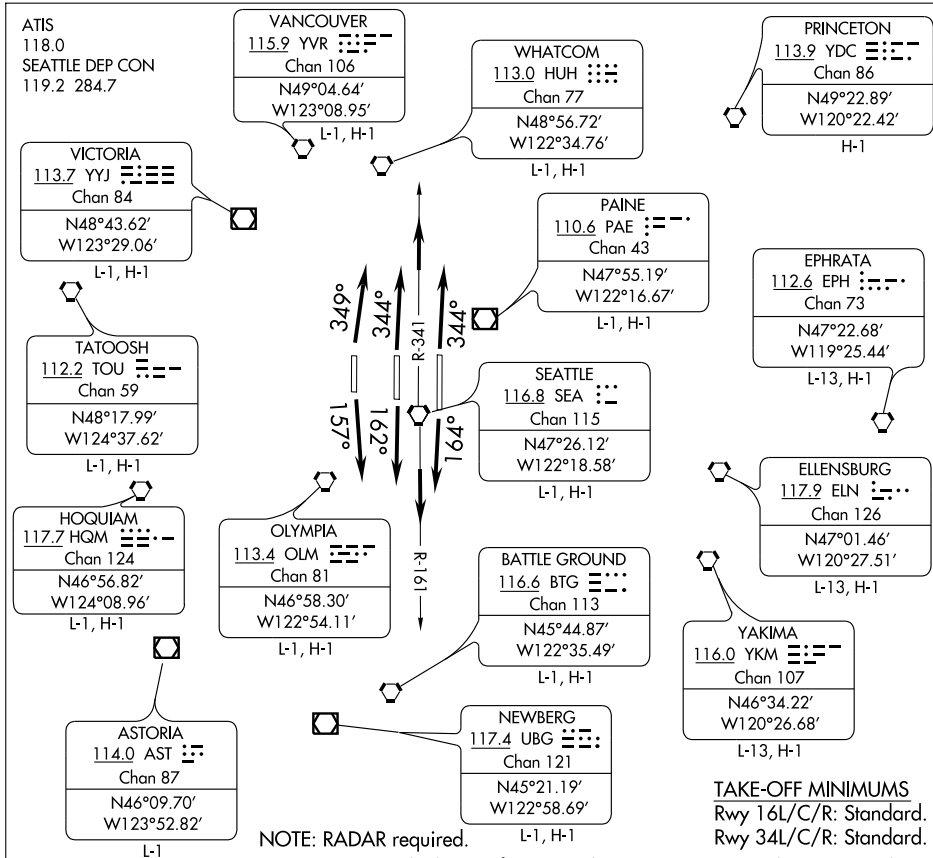


SEATTLE FOUR DEPARTURE

SL-582 (FAA)

SEATTLE-TACOMA INTL (SEA)

SEATTLE, WASHINGTON



NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 34L: Climb heading 349° and SEA R-341, thence. . .TAKE-OFF RUNWAY 34C/R: Climb heading 344° and SEA R-341, thence. . .TAKE-OFF RUNWAY 16L: Climb heading 164° and SEA R-161, thence. . .TAKE-OFF RUNWAY 16C: Climb heading 162° and SEA R-161, thence. . .TAKE-OFF RUNWAY 16R: Climb heading 157° and SEA R-161, thence. . .

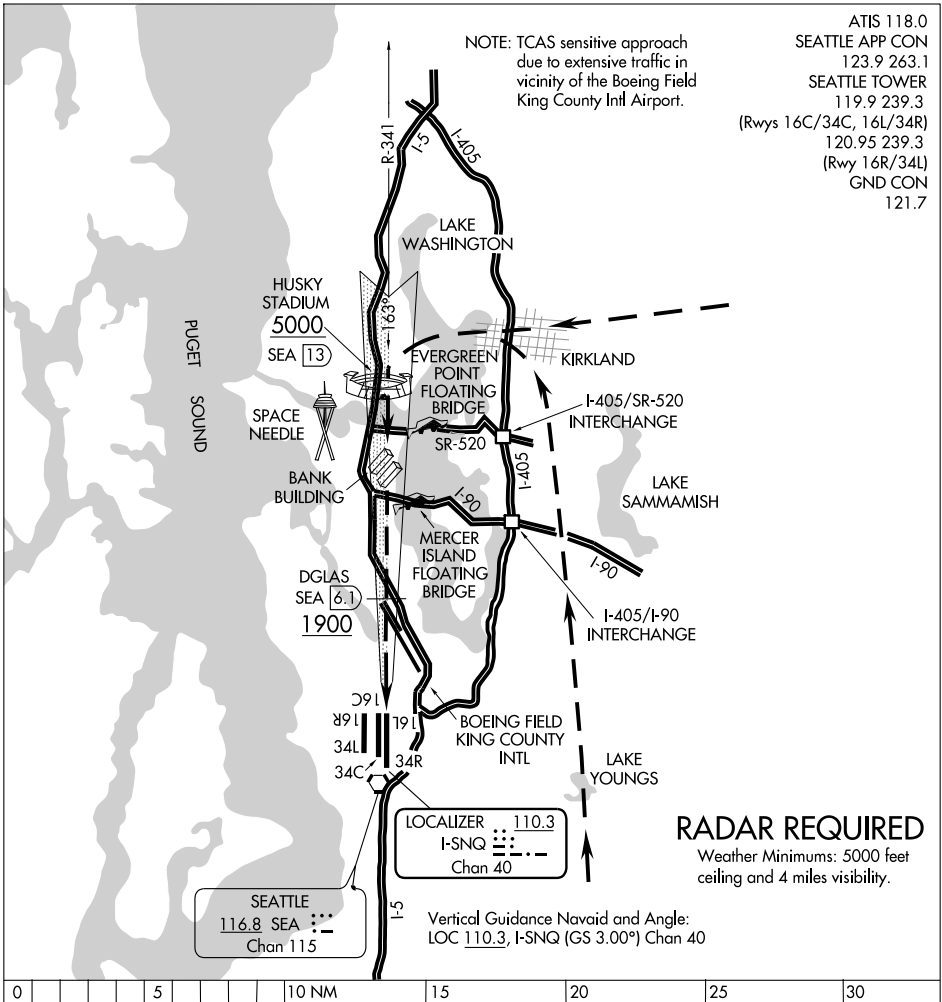
. . . Maintain assigned altitude, expect radar vectors to assigned route.

STADIUM VISUAL RWY 16L

AL-582 (FAA)

SEATTLE-TACOMA INTL (SEA)

SEATTLE, WASHINGTON



STADIUM VISUAL APPROACH RWY 16L

When the ceiling is at least 5000' and visibility is at least 4 miles, aircraft may be vectored over Kirkland or Lake Youngs for a Stadium Visual Runway 16L Approach. When cleared for a Stadium Visual Approach; proceed inbound visually over Husky Stadium (via route depicted); intercept the Runway 16L localizer/SEA R-341 at 13 DME and complete a straight in visual approach to the airport.

SUMMA SEVEN DEPARTURE

SL-582 (FAA)

SEATTLE-TACOMA INTL (SEA)
SEATTLE, WASHINGTON

ATIS
118.0
SEATTLE DEP CON
119.2 284.7

NEZUG
N47°34.12'
W122°18.58'
4000

PAINE
110.6 PAE
Chan 43

TAKE-OFF MINIMUMS

Rwys 16L/C/R: Standard.

Rwys 34L/C/R: Standard with minimum climb of 580' per NM to 4000 (ATC).

TAKE-OFF OBSTACLE NOTES

Rwy 16L: Trees beginning 2908' from DER, 1064' right of centerline, up to 100' AGL/476' MSL.

Rwy 16C: Trees beginning 4477' from DER, 484' right of centerline, up to 100' AGL/507' MSL.

Rwy 16R: Trees, antenna on building and light pole beginning 488' from DER, 436' left of centerline, up to 100' AGL/507' MSL. Trees beginning 1137' from DER, 587' right of centerline, up to 100' AGL/468' MSL.

Rwy 34L: Fence 189' from DER, 401' right of centerline, up to 12' AGL/420' MSL. Trees beginning 4010' from DER, 857' left of centerline, up to 100' AGL/522' MSL.

NEVJO
N47°15.13'
W122°18.58'

OLYMPIA
113.4 OLM
Chan 81

SUMMA
N46°37.07'
W121°59.30'

BAKER CITY
115.3 BKE
Chan 100
N44°50.44' W117°48.47'
L-13, H-1

LAKEVIEW
112.0 LKV
Chan 57
N42°29.57' W120°30.43'
L-11, H-3

NOTE: RADAR and DME required.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 34L: Climb heading 346° and SEA R-341, thence. . .TAKE-OFF RUNWAY 34C: Climb heading 343° and SEA R-341, thence. . .TAKE-OFF RUNWAY 34R: Climb heading 342° and SEA R-341, thence. . .

. . .to cross NEZUG at or above 4000, then right turn heading 070° to cross the PAE R-139, then right turn heading 165° to intercept SEA R-146 to SUMMA INT, then via assigned transition.

TAKE-OFF RUNWAYS 16L/C: Climb heading 163° and SEA R-161, thence. . .TAKE-OFF RUNWAY 16R: Climb heading 161° and SEA R-161, thence. . .

. . .to NEVJO, then left turn heading 130° to intercept the SEA R-146 to SUMMA INT, then via assigned transition.

BAKER CITY TRANSITION (SUMMA7.BKE): From over SUMMA INT via OLM R-100 and BKE R-283 to BKE VOR/DME.LAKEVIEW TRANSITION (SUMMA7.LKV): From over SUMMA INT via SEA R-146 and LKV R-327 to LKV VORTAC.

VORTAC SEA 116.8 Chan 115	APP CRS 161°	Rwy 16L Idg 11901 TDZE 433 Apt Elev 433	Rwy 16C Idg 9426 TDZE 430 Apt Elev 433
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VOR/DME RWY 16L/C
SEATTLE-TACOMA INTL (SEA)

See additional requirements on adjacent information page.

ALSF-2
Rwy 16L/C

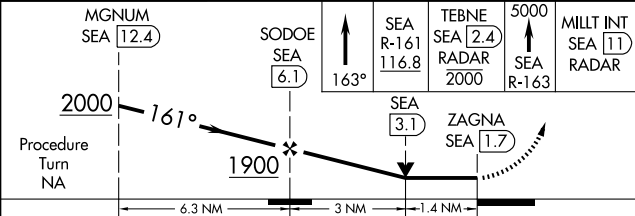
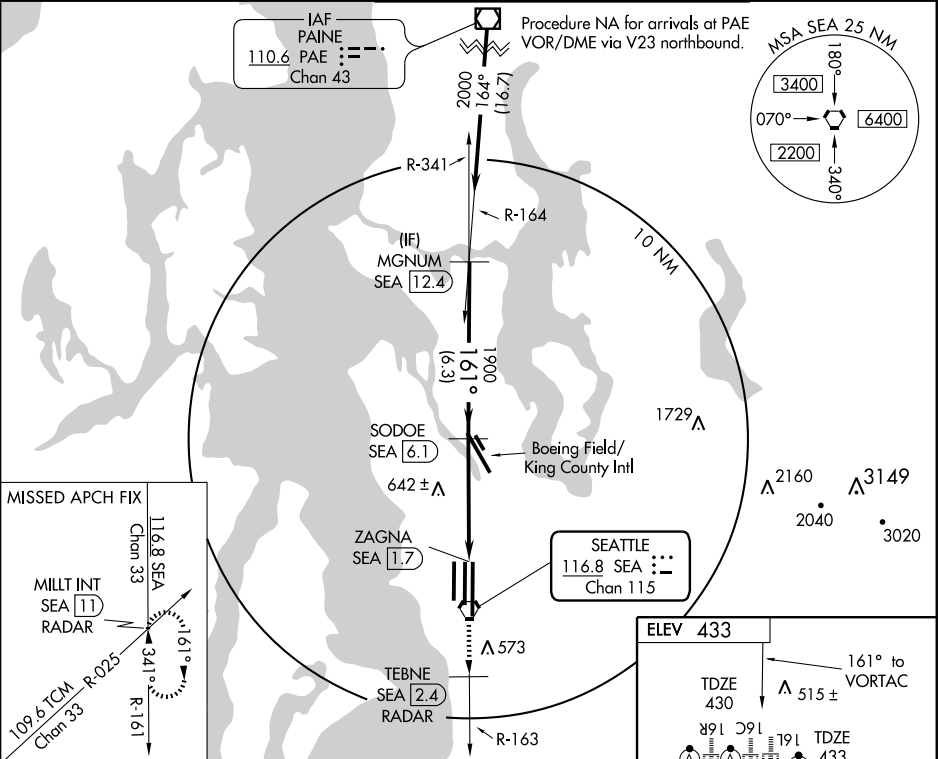
MISSED APPROACH: Climb heading 163° and SEA VORTAC R-161 to cross TEBNE/2.4 DME/RADAR at or below 2000, then climb to 5000 via SEA R-163 to MILIT INT/SEA 11 DME/RADAR and hold, continue climb-in-hold to 5000.

ATIS
118.0

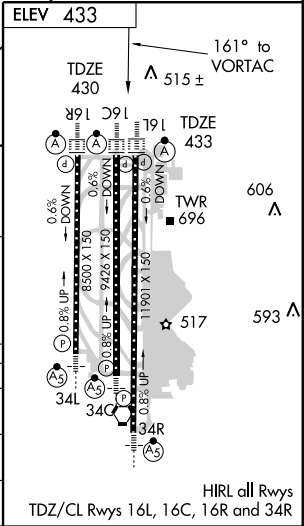
SEATTLE APP CON
133.65 273.45

SEATTLE TOWER
119.9 239.3 (Rwys 16C/34C, 16L/34R)
120.95 239.3 (Rwy 16R/34L)

GND CON
121.7



CATEGORY	A	B	C	D
S-16L	960/24 527 (600-½)		960/50 527 (600-1)	960/60 527 (600-1 ¼)
S-16C	960/24 530 (600-½)		960/50 530 (600-1)	960/60 530 (600-1 ¼)
CIRCLING	1000-1 567 (600-1)		1000-½ 567 (600-½)	1000-2 567 (600-2)



SEATTLE-TACOMA INTL AIRPORT**ALERT NOTICE****ATTENTION ALL AIRCRAFT LANDING TO THE SOUTH:**

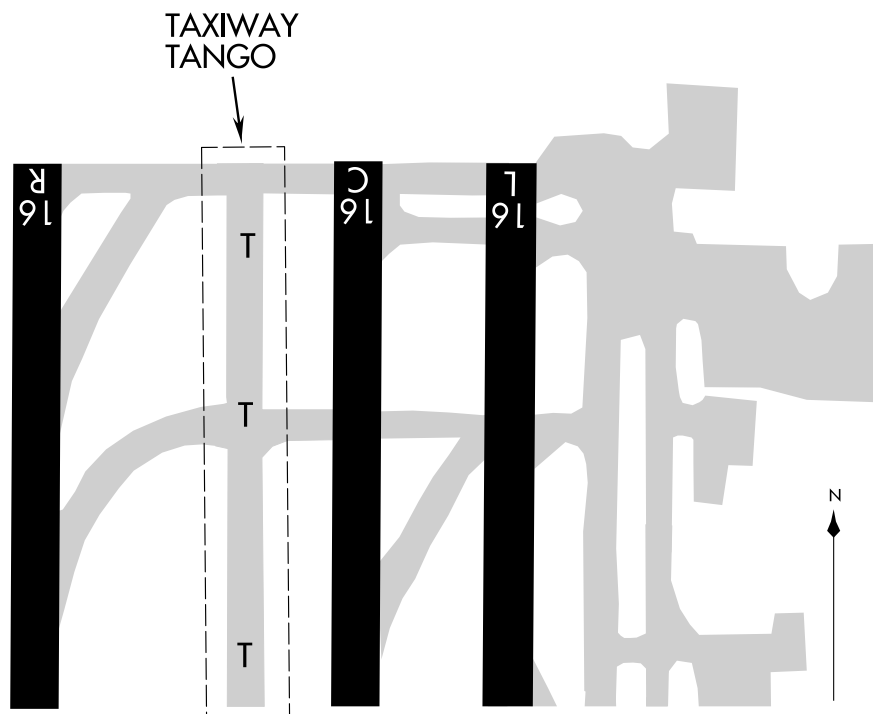
When transitioning from an instrument procedure to a visual approach to Runway 16C, verify you are aligned for the intended landing Runway, not Taxiway Tango. Taxiway Tango is west and parallel to Runway 16C.

TRANSITION TO VISUAL:

Taxiway Tango has been mistaken for Runway 16C from the air during certain visibility conditions, i.e., wet runway, low sun angle reflections. Aircrews are advised to be aware of the proximity of the taxiway to Runway 16C and its runway-like appearance while on approach.

RECOMMENDATION:

Aircrews should use visual cues, e.g., approach lighting systems, REILs, when available, to confirm alignment with Runway 16C not Taxiway Tango. Additionally, it is recommended when executing a segment of the ILS approach for a visual transition, track the localizer until the runway environment is visually verified.



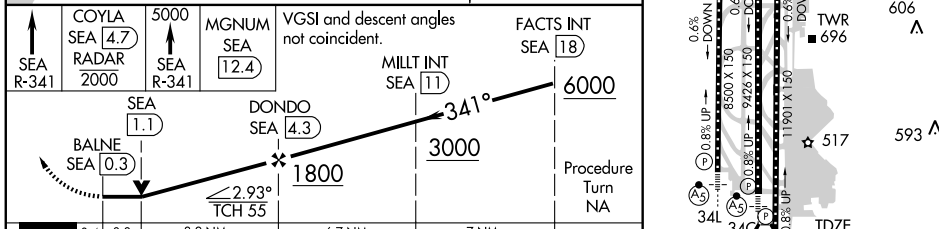
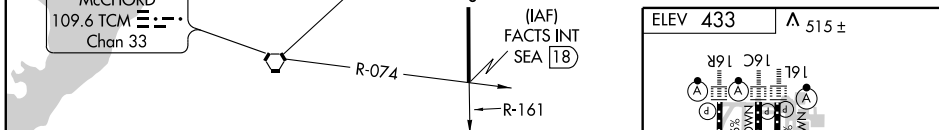
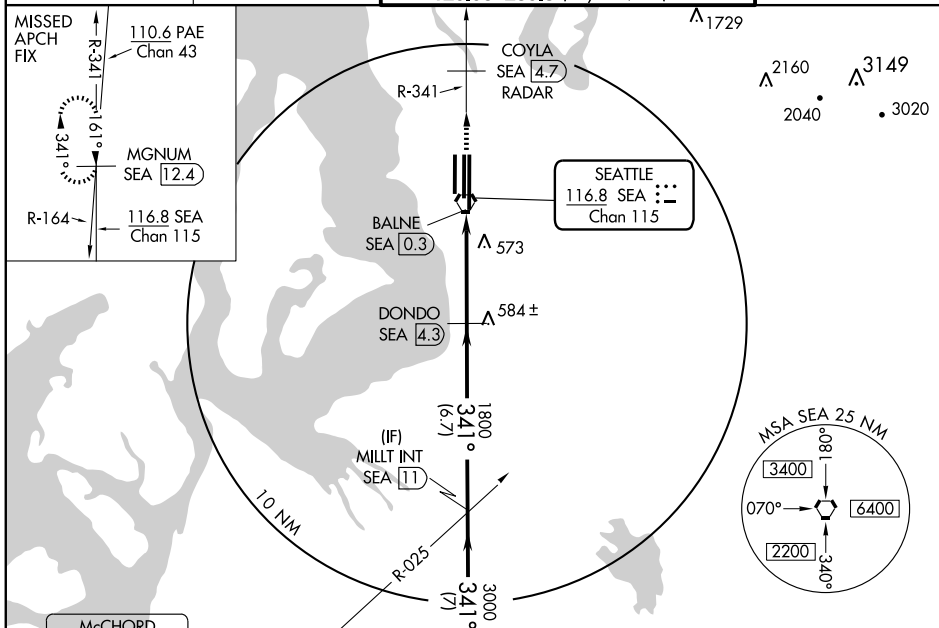
VORTAC SEA 116.8 Chan 115	APP CRS 341°	Rwy 34C Idg 9426 TDZE 387 Apt Elev 433	Rwy 34R Idg 11901 TDZE 372 Apt Elev 433
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VOR/DME RWY 34C

SEATTLE-TACOMA INTL (SEA)

<p>⚠ Inoperative table does not apply to sidestep 34R Cats. A and B.</p>	<p>MALSR Rwy 34C/R </p>	<p>MISSED APPROACH: Climb via SEA R-341 to cross COYLA/4.7 DME/RADAR at or below 2000, then climb to 5000 via SEA R-341 to MGNUM/SEA 12.4 DME and hold, continue climb-in-hold to 5000.</p>
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ATIS 118.0	SEATTLE APP CON 133.65 273.45	SEATTLE TOWER 119.9 239.3 (Rwys 16C/34C, 16L/34R) 120.95 239.3 (Rwy 16R/34L)	GND CON 121.7
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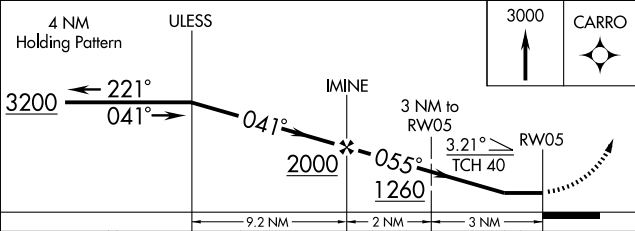
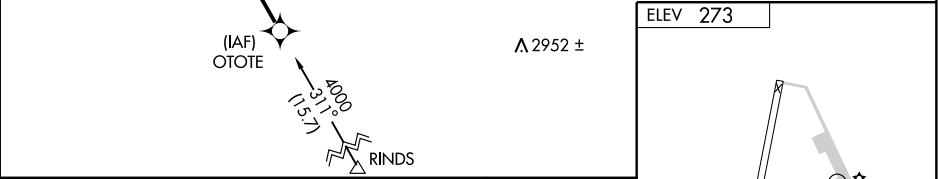
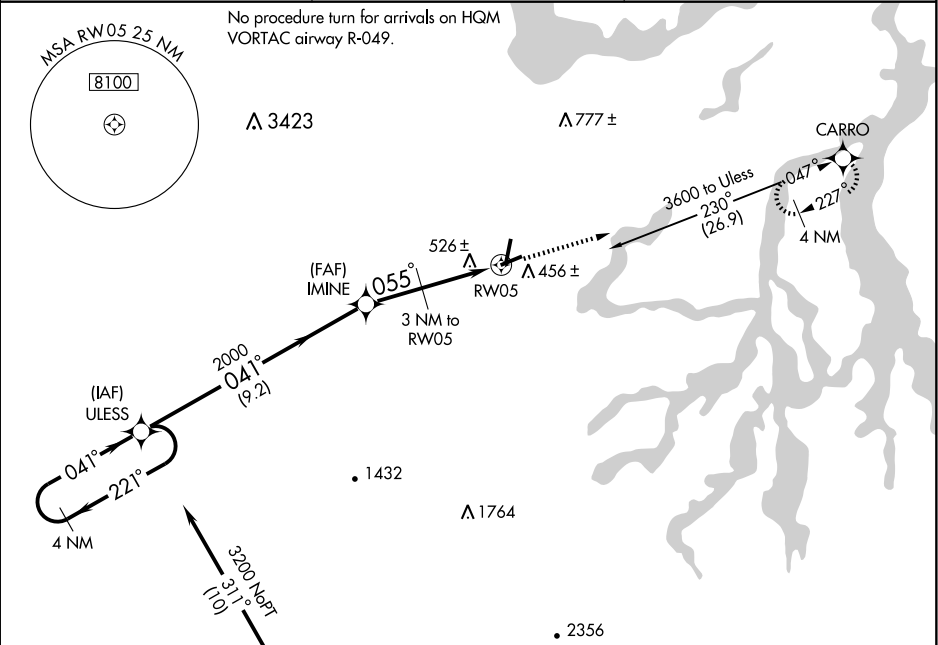


CATEGORY	A	B	C	D
S-34C	840/24 453 (500-½)	840/40 453 (500-¾)	840/50 453 (500-1)	
SIDESTEP 34R	840/60 468 (500-1¼)		840-1¾ 468 (500-1¾)	
CIRCLING	1000-1 567 (600-1)	1000-1½ 567 (600-1½)	1000-2 567 (600-2)	

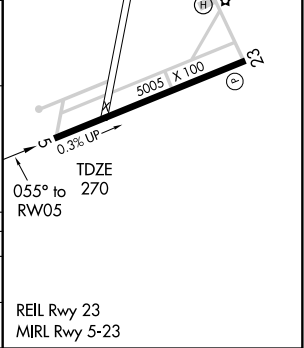
APP CRS	Rwy Idg	5005
055°	TDZE	270
	Apt Elev	273

<div><div>▼</div><div>▲ NA</div></div>	MISSED APPROACH: Climb to 3000 direct CARRO WP and hold.
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ASOS 119.275	SEATTLE APP CON 121.1 290.9	UNICOM 122.8 (CTAF)
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CATEGORY	A	B	C	D
S-5	780-1	510 (600-1)	780-1½ 510 (600-1½)	780-1¾ 510 (600-1¾)
CIRCLING	840-1	567 (600-1)	940-2 667 (700-2)	1000-2¼ 727 (800-2¼)




REIL Rwy 23
MIRL Rwy 5-23

GPS RWY 23

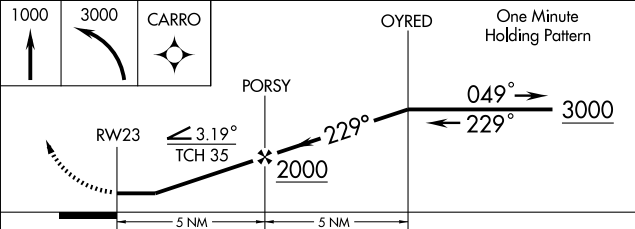
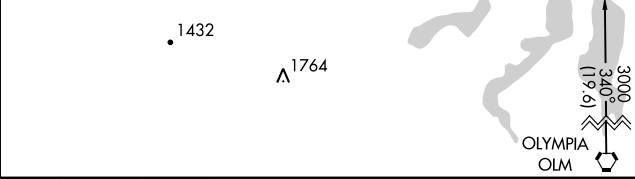
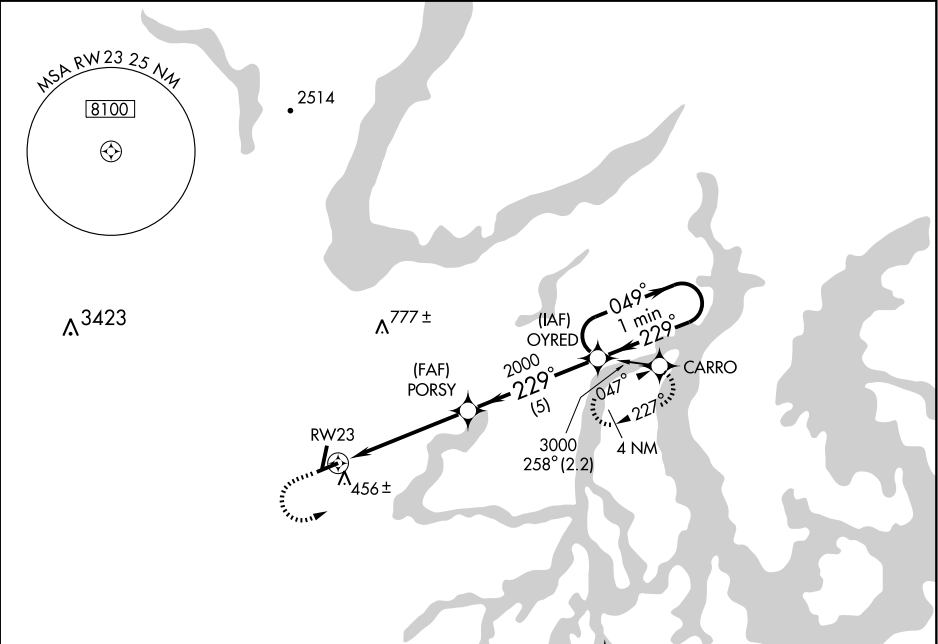
SHELTON/ SANDERSON FIELD (SHN)

APP CRS	Rwy Idg	5005
229°	TDZE	273
	Apt Elev	273

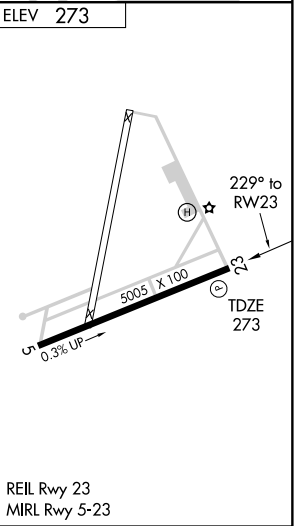

NA

MISSED APPROACH: Climb to 1000 then climbing left turn to 3000 direct CARRO WP and hold.

ASOS 119.275	SEATTLE APP CON 121.1 290.9	UNICOM 122.8 (CTAF)
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CATEGORY	A	B	C	D
S-23	860-1 587 (600-1)	860-1½ 587 (600-1½)	860-1¾ 587 (600-1¾)	860-2 587 (600-2)
CIRCLING	860-1 587 (600-1)	860-1½ 587 (600-1½)	860-1¾ 587 (600-1¾)	860-2 587 (600-2)

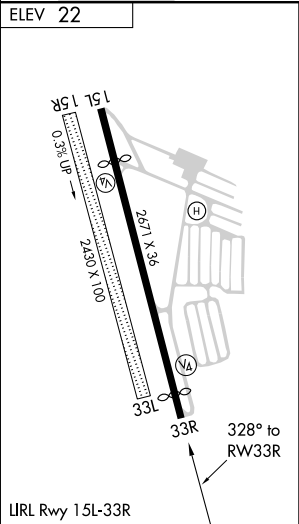
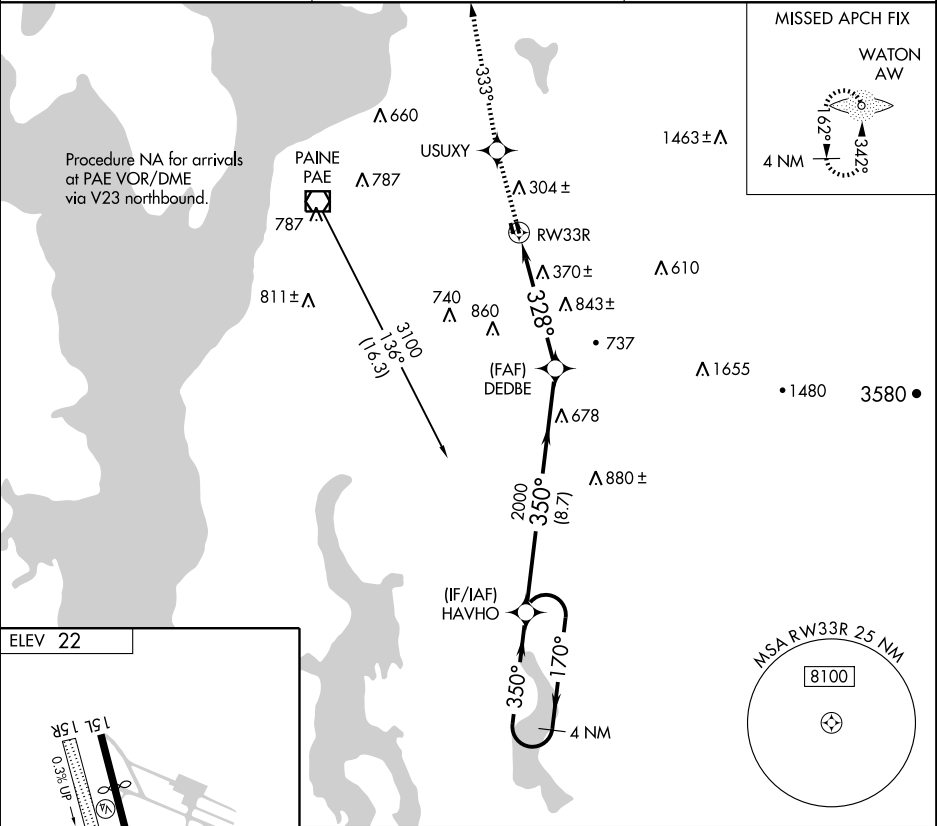


APP CRS	Rwy Idg	N/A
328°	TDZE	N/A
	Apt Elev	22

RNAV (GPS)-A
SNOHOMISH/ HARVEY FIELD (S43)

<p>Procedure NA</p> <p>DME/DME RNP-0.3 NA.</p> <p>Procedure NA at night.</p> <p>Use Arlington altimeter setting. When not received, use Everett altimeter setting and increase all MDA 60 feet.</p>	<p>MISSED APPROACH: Climb to 2000 direct USUXY and via 333° track to WATON LOM and hold.</p>
--	--

ARLINGTON AWOS-3 135.625	SEATTLE CENTER 128.5 306.9	UNICOM 123.0 (CTAF)
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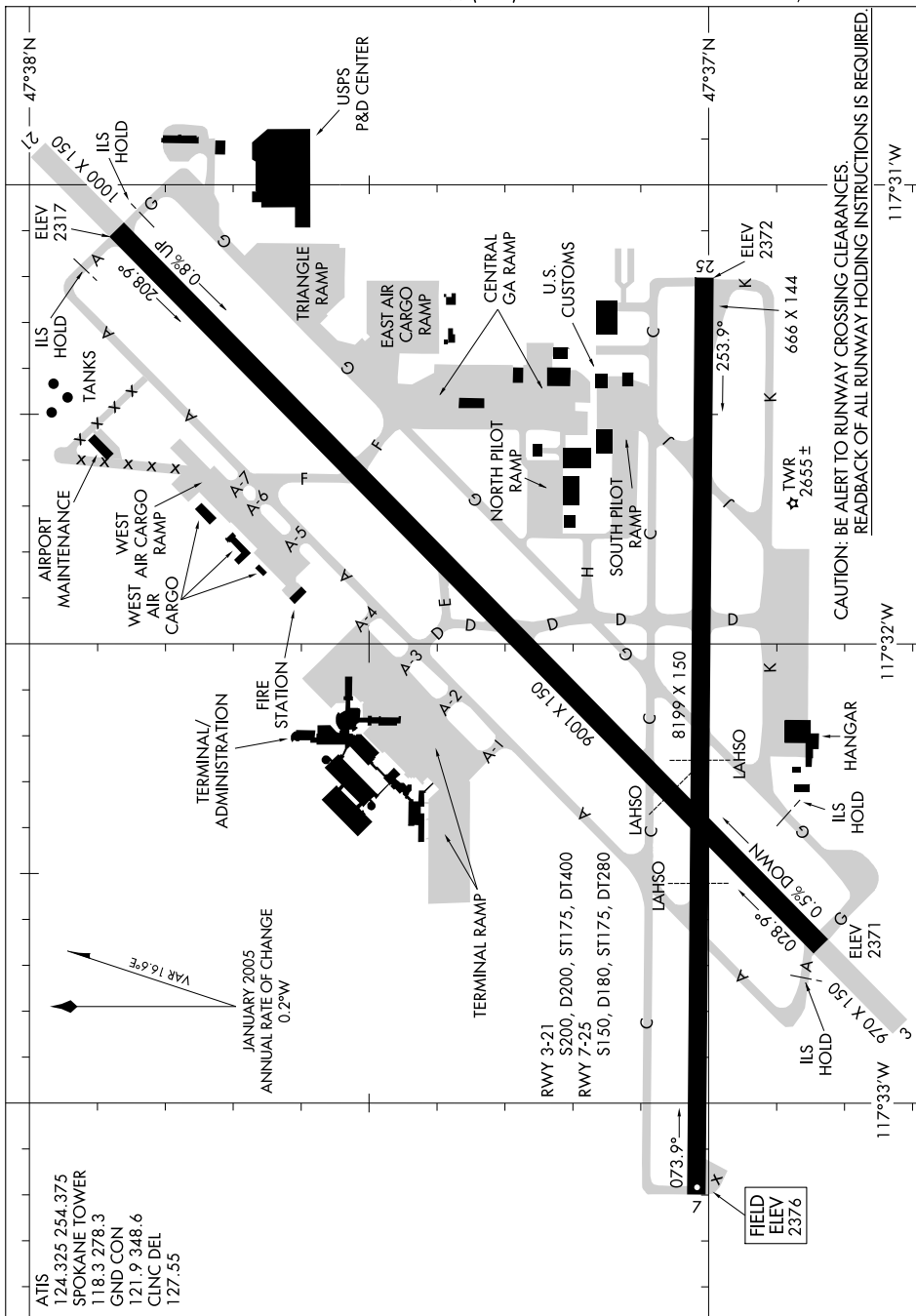


2000	USUXY	333° track	AW	HAVHO	4 NM Holding Pattern
VGSI and descent angles not coincident.		DEDBE			
RW33R		328°			
2000		350°			
3100		170°			
5 NM		8.7 NM			
CATEGORY	A	B	C	D	
CIRCLING	1220-1¼ 1198 (1200-1¼)	1220-1½ 1198 (1200-1½)	NA		

AIRPORT DIAGRAM

AL-403 (FAA)

SPOKANE INTL (GEG)
SPOKANE, WASHINGTON



NW-1 17 DEC 2009 to 14 JAN 2010

SPOKANE APP CON

133.35 263.0

SPOKANE INIT ATIS

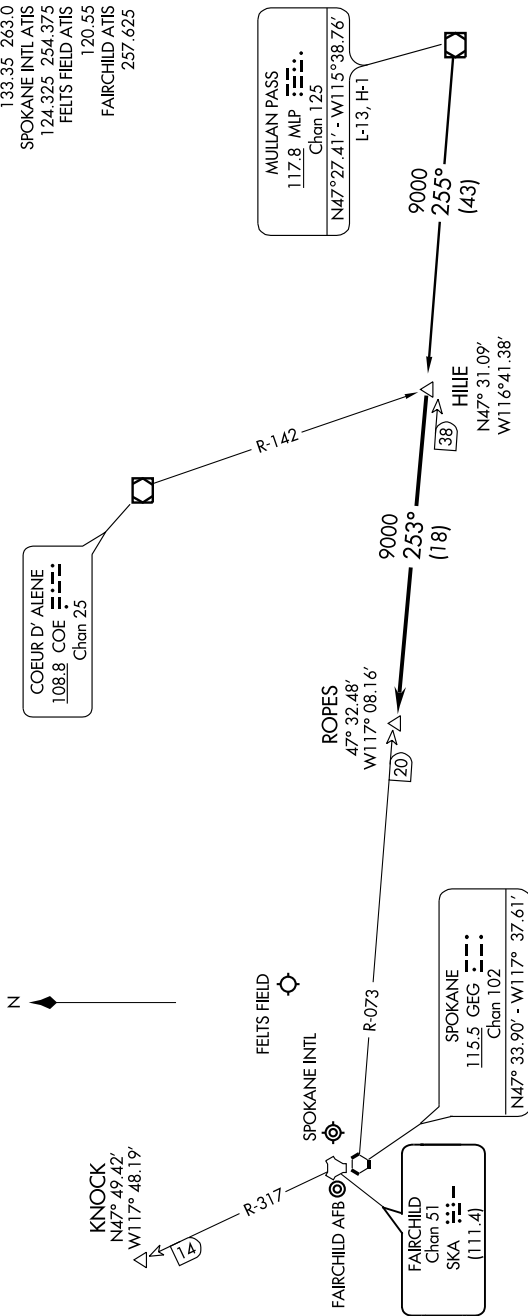
124.325 254.375

FELTS FIELD ATIS

120.55

FAIRCHILD ATIS

257.625



MULLAN PASS TRANSITION (MLP.HILIE1): From over MLP VOR/DME via MLP R-255 to HILIE INT. Thence. . .

. . . From over HILIE INT via GEG R-073 to ROPES INT. Expect radar vectors to final approach course.

LOST COMMUNICATIONS: After ROPES INT:

Landing Spokane Intl or Felts Field: Proceed to GEG VORTAC via GEG R-073, maintain last altitude to GEG.

Landing Fairchild AFB: Proceed to KNOCK DME via direct, maintain last assigned altitude to KNOCK.

NOTE: DME and RADAR required.

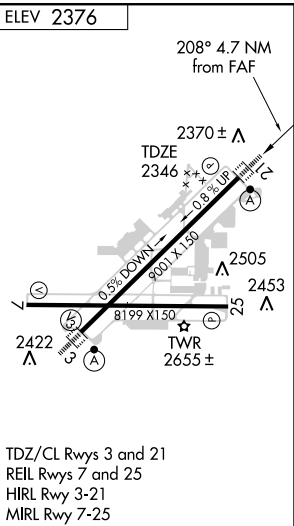
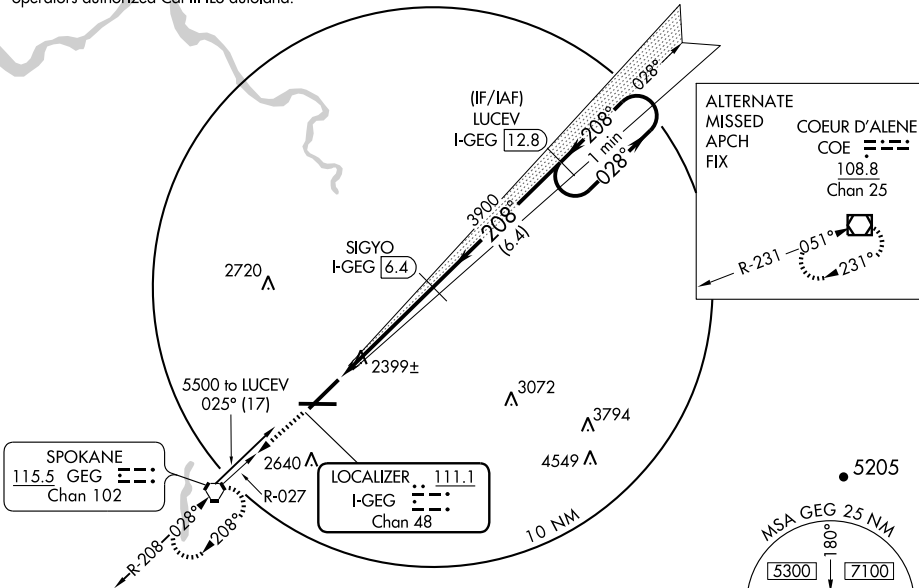
NOTE: Chart not to scale.

LOC/DME I-GEG	APP CRS	Rwy Idg	9001
111.1	208°	TDZE	2346
Chan 48		Apt Elev	2376


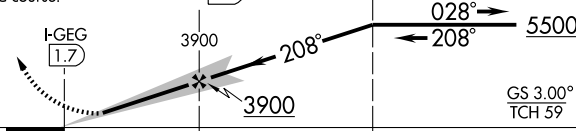
ILS or LOC/DME RWY 21
SPOKANE INTL (GEG)

⚠ For inoperative ALSF, increase S-LOC 21 Cat D visibility to 1.		ALSF-2 	MISSED APPROACH: Climb to 4200 via GEG VORTAC R-027 to GEG VORTAC and hold.	
ATIS 124.325 254.375	SPOKANE APP CON 123.75 282.25 (WEST) 133.35 263.0 (EAST)	SPOKANE TOWER 118.3 278.3	GND CON 121.9 348.6	CLNC DEL 127.55

Autoland NA when weather below 300/1 except for operators authorized Cat III ILS autoland.



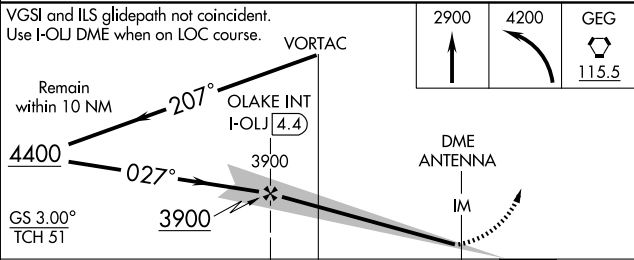
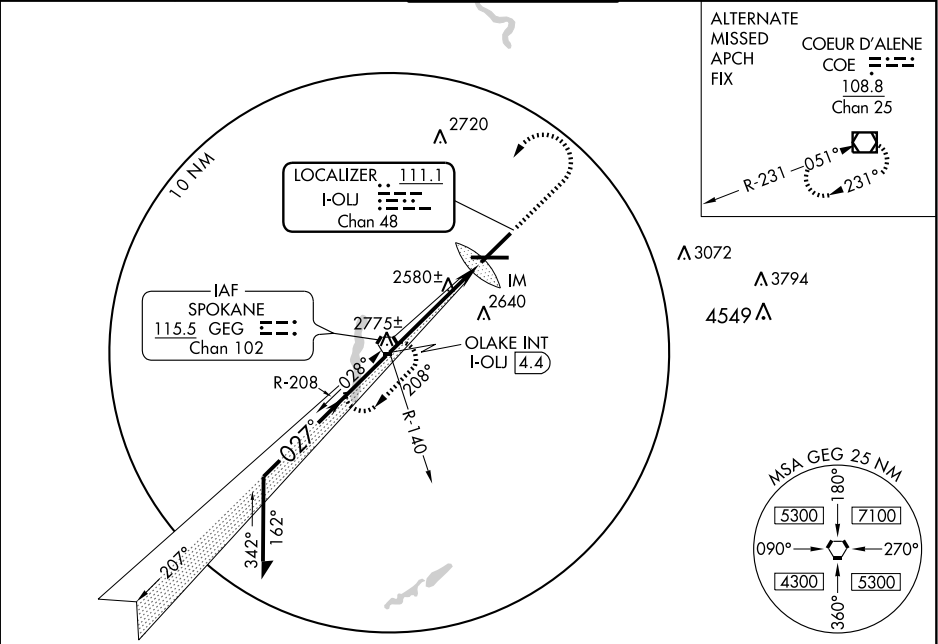
DME REQUIRED

4200 ↑ GEG R-027		GEG 115.5 		VGSI and ILS glidepath not coincident.		LUCEV I-GEG 12.8		One Minute Holding Pattern	
Use I-GEG DME when on LOC course.				SIGYO I-GEG 6.4					
				3900		208°		028° ← 208°	
				3900				GS 3.00° TCH 59	
CATEGORY		A		B		C		D	
S-ILS 21		2546/18 200 (200-½)							
S-LOC 21		2680/24 334 (400-½)						2680/40 334 (400-¾)	
CIRCLING		2960-1 584 (600-1)				2960-1½ 584 (600-1½)		2980-2 604 (700-2)	

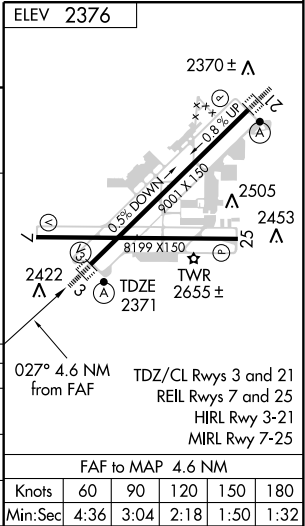
LOC/DME I-OLJ	APP CRS	Rwy Idg	9001
111.1	027°	TDZE	2371
Chan 48		Apt Elev	2376

ILS or LOC RWY 3
SPOKANE INTL (GEG)

		ALSIF-2 	MISSED APPROACH: Climb to 2900 then climbing left turn to 4200 direct GEG VORTAC and hold.	
ATIS	SPOKANE APP CON	SPOKANE TOWER	GND CON	CLNC DEL
124.325 254.375	123.75 282.25 (WEST) 133.35 263.0 (EAST)	118.3 278.3	121.9 348.6	127.55



CATEGORY	A	B	C	D
S-ILS 3	2571/18 200 (200-½)			
S-LOC 3	2880/24 509 (600-½)		2880/50 509 (600-1)	
CIRCLING	2960-1 584 (600-1)		2960-1½ 584 (600-1½)	2980-2 604 (700-2)

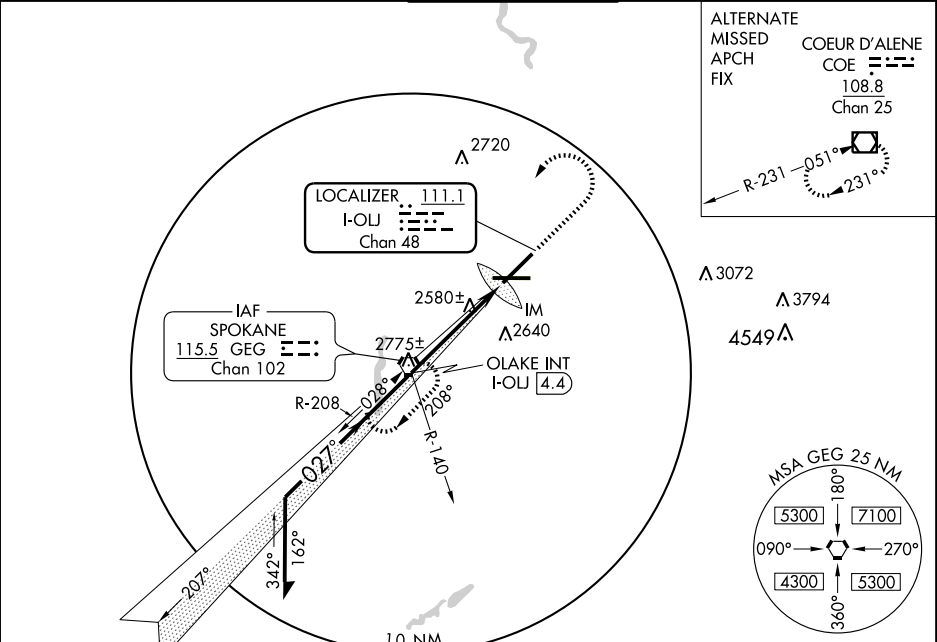


LOC/DME I-OLJ	APP CRS	Rwy Idg	9001
111.1	027°	TDZE	2371
Chan 48		Apt Elev	2376

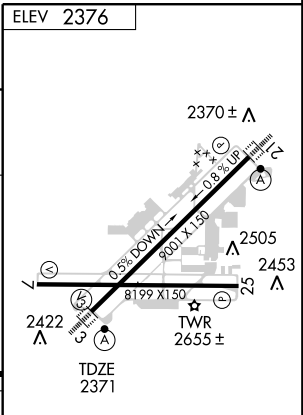
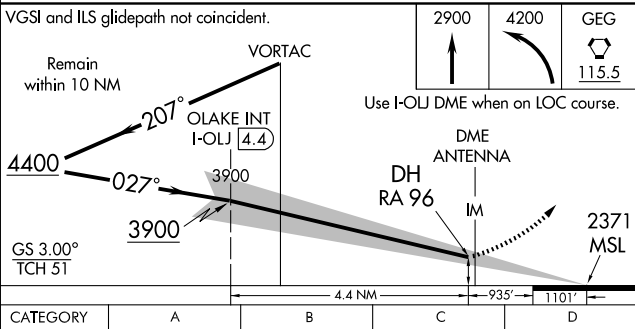
ILS RWY 3 (CAT II)
SPOKANE INTL (GEG)

	ALSF-2 	MISSED APPROACH: Climb to 2900 then climbing left turn to 4200 direct GEG VORTAC and hold.
--	------------	--

ATIS	SPOKANE APP CON	SPOKANE TOWER	GND CON	CINC DEL
124.325 254.375	123.75 282.25 (WEST) 133.35 263.0 (EAST)	118.3 278.3	121.9 348.6	127.55



ELEV 2376



CATEGORY II ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

RA 96/12 100 DA 2471

TDZ/CL Rwy 3 and 21
REIL Rwy 7 and 25
HIRL Rwy 3-21
MIRL Rwy 7-25

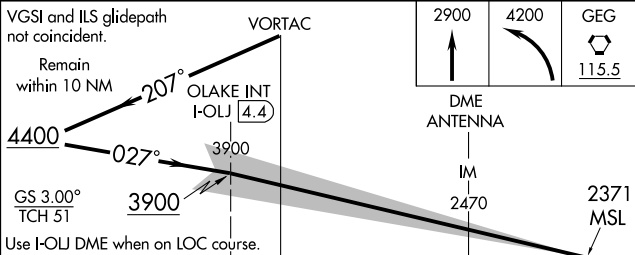
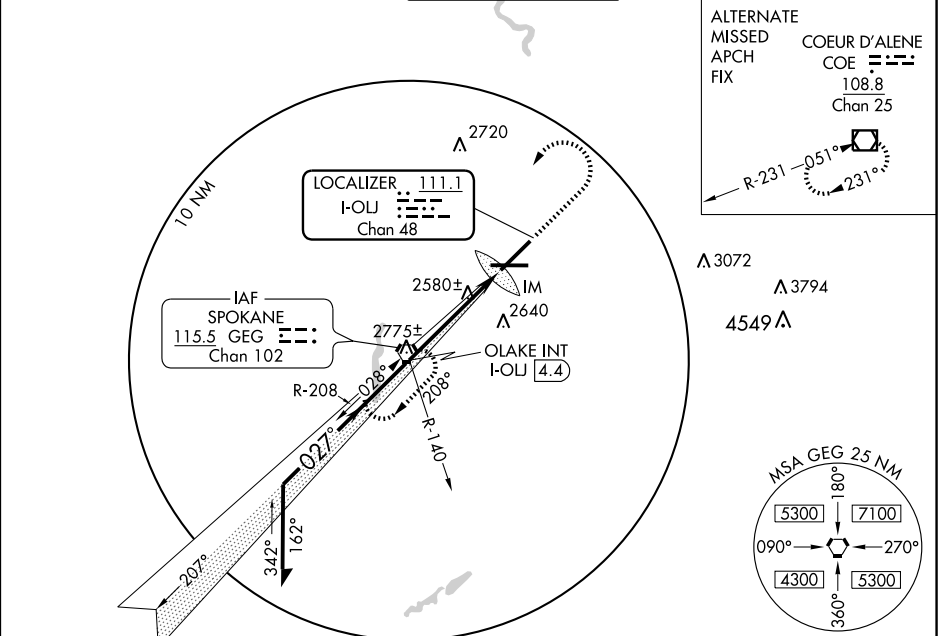
LOC/DME I-OLJ	APP CRS	Rwy Idg	9001
111.1	027°	TDZE	2371
Chan 48		Apt Elev	2376

ILS RWY 3 (CAT III)
SPOKANE INTL (GEG)

ALSF-2

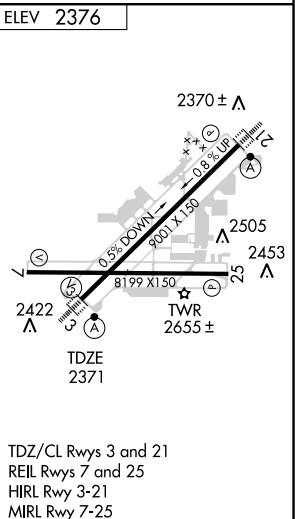
MISSED APPROACH: Climb to 2900 then climbing left turn to 4200 direct GEG VORTAC and hold.

ATIS	SPOKANE APP CON	SPOKANE TOWER	GND CON	CLNC DEL
124.325 254.375	123.75 282.25 (WEST) 133.35 263.0 (EAST)	118.3 278.3	121.9 348.6	127.55



CATEGORY	A	B	C	D
S-ILS 3		CAT IIIa	RVR 700	
S-ILS 3		CAT IIIb	RVR 600	
S-ILS 3		CAT IIIc	NA	

CATEGORY III ILS - SPECIAL AIRCREW
& AIRCRAFT CERTIFICATION REQUIRED



TDZ/CL Rwy 3 and 21
REIL Rwy 7 and 25
HIRL Rwy 3-21
MIRL Rwy 7-25

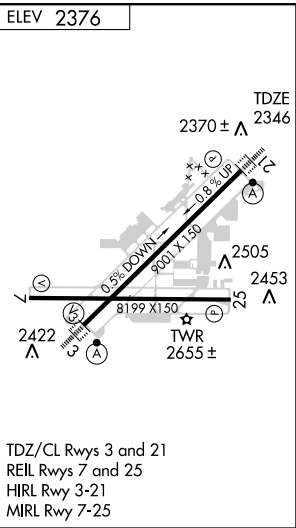
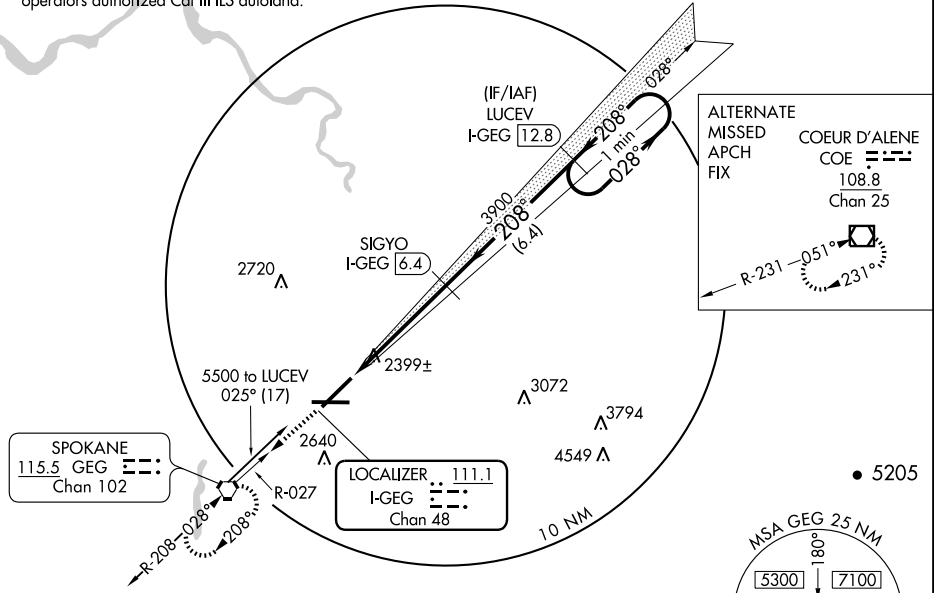
LOC/DME I-GEG	APP CRS	Rwy Idg	9001
111.1	208°	TDZE	2346
Chan 48		Apt Elev	2376

ALSIF-2

MISSED APPROACH: Climb to 4200 via GEG VORTAC R-027 to GEG VORTAC and hold.

ATIS	SPOKANE APP CON	SPOKANE TOWER	GND CON	CLNC DEL
124.325 254.375	123.75 282.25 (WEST) 133.35 263.0 (EAST)	118.3 278.3	121.9 348.6	127.55

Autoland NA when weather below 300/1 except for operators authorized Cat III ILS autoland.



DME REQUIRED

4200

GEG

115.5

VGSI and ILS glidepath not coincident.

LUCEV I-GEG 12.8

One Minute Holding Pattern

028°

208°

5500

GS 3.00°

TCH 59

3900

3900

208°

208°

3900

RA 147

DH

2346 MSL

941'

947'

4.5 NM

6.4 NM

CATEGORY	A	B	C	D
S-ILS 21	RA 147/16 100 DA 2446			

CATEGORY II ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

LOC/DME I-GEG	APP CRS	Rwy Idg	9001
111.1	208°	TDZE	2346
Chan 48		Apt Elev	2376

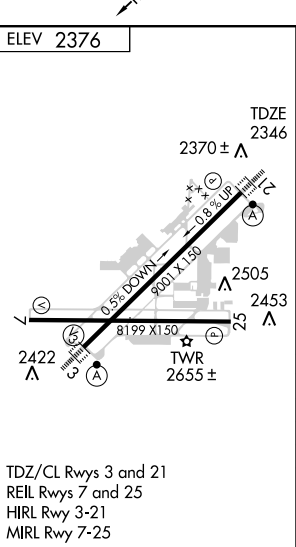
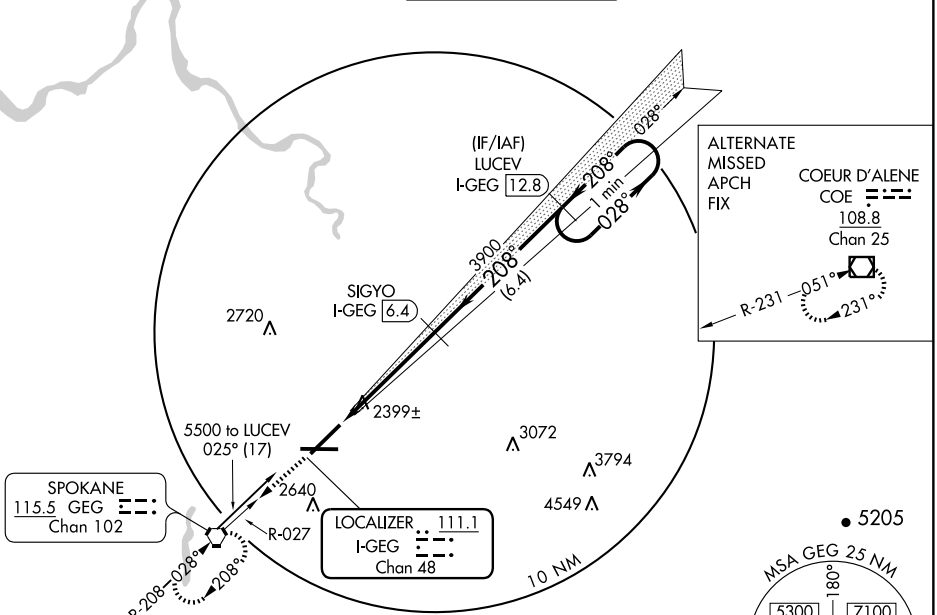
ILS RWY 21 (CAT III)

SPOKANE INTL (GEG)

ALSF-2

MISSED APPROACH: Climb to 4200 via GEG VORTAC R-027 to GEG VORTAC and hold.

ATIS	SPOKANE APP CON	SPOKANE TOWER	GND CON	CLNC DEL
124.325 254.375	123.75 282.25 (WEST) 133.35 263.0 (EAST)	118.3 278.3	121.9 348.6	127.55



SPECIAL AUTOLAND

EVALUATION REQUIRED

DME REQUIRED

	4200	GEG	VGSI and ILS glidepath not coincident.	LUCEV	One Minute Holding Pattern
	GEG R-027	115.5		I-GEG 12.8	
	Use I-GEG DME when on LOC course.				
	2346 MSL	SIGYO			
		I-GEG 6.4			
		3900			
		3900			
		4.7 NM			
		6.4 NM			
CATEGORY	A	B	C	D	
S-ILS 21		CAT IIIa	RVR 07		
S-ILS 21		CAT IIIb	RVR 06		
S-ILS 21		CAT IIIc	NA		

CATEGORY III ILS - SPECIAL AIRCREW

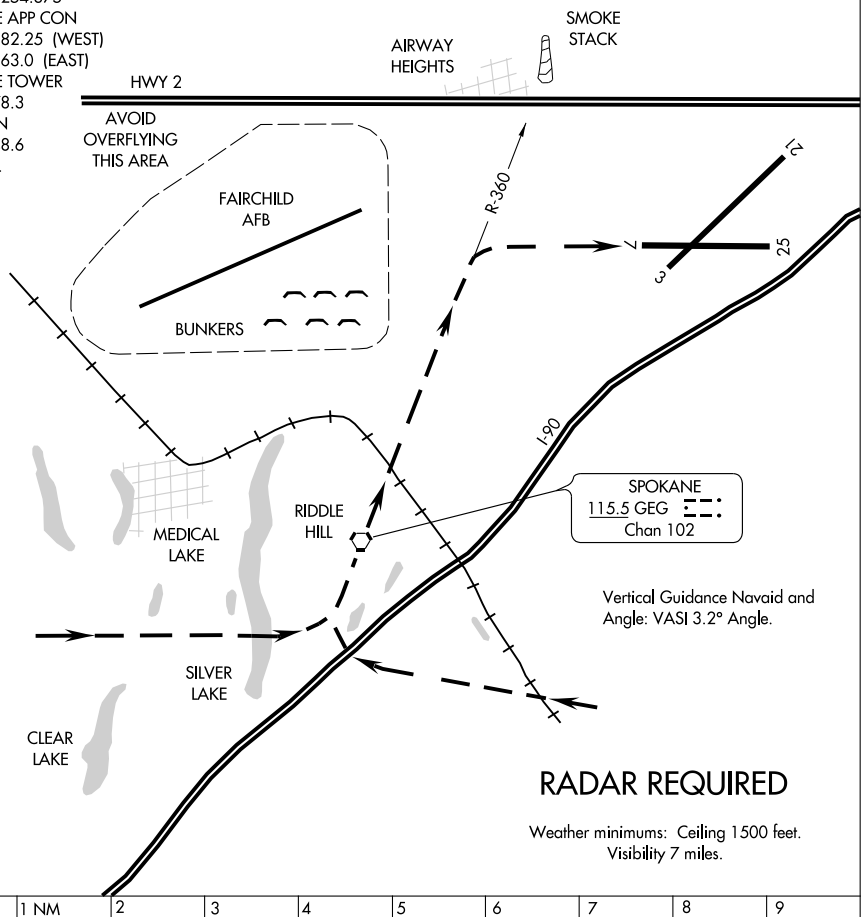
& AIRCRAFT CERTIFICATION REQUIRED

RIDDLE HILL VISUAL RWY 7

AL-403 (FAA)

SPOKANE INTL (GEG)
SPOKANE, WASHINGTON

ATIS
124.325 254.375
SPOKANE APP CON
123.75 282.25 (WEST)
133.35 263.0 (EAST)
SPOKANE TOWER
118.3 278.3
GND CON
121.9 348.6
CLNC DEL
127.55



RIDDLE HILL VISUAL APPROACH RWY 7

PROCEDURE NOT AUTHORIZED AT NIGHT.

APP CRS	Rwy Idg	9001
027°	TDZE	2371
	Apt Elev	2376

RNAV (GPS) RWY 3
SPOKANE INTL (GEG)

SPOKANE INTL (GEG)

T DME/DME RNP-0.3 NA.
For uncompensated Baro-VNAV systems, LNAV/VNAV
NA below -19°C (-2°F) or above 43°C (110°F).

ALSF-2



MISSED APPROACH: Climb to 5000 direct PHORT LOM and hold.

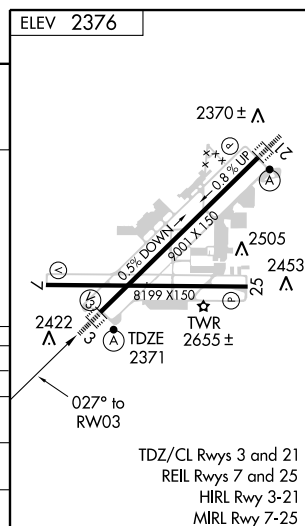
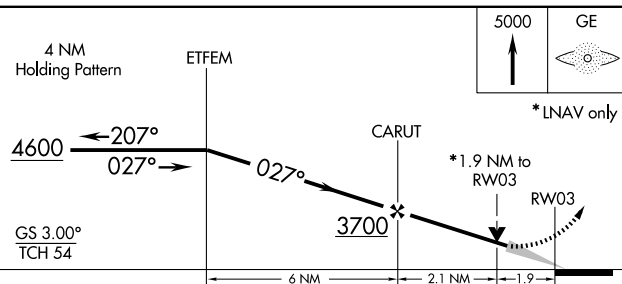
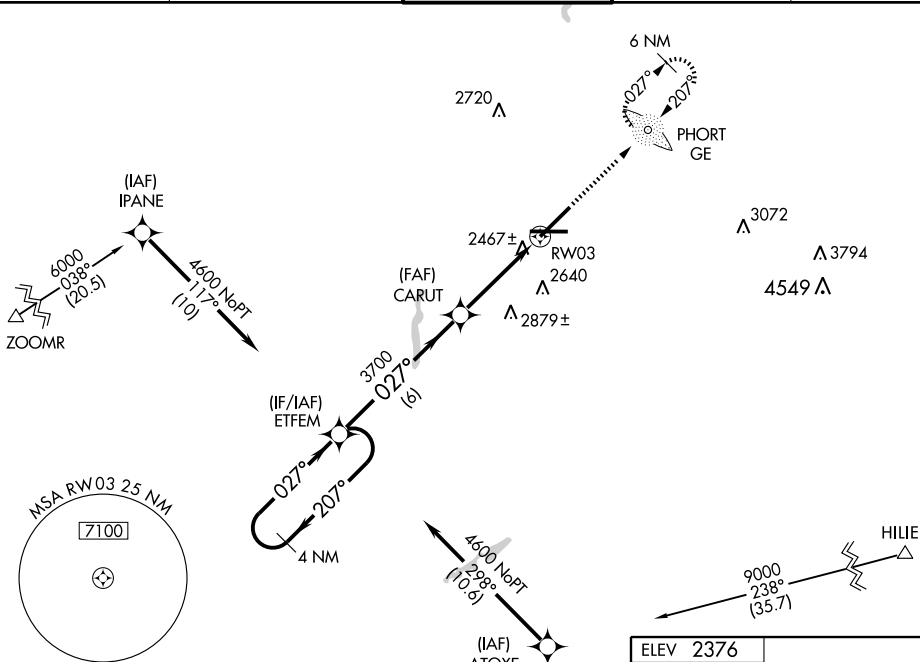
ATIS
124.325 254.375

SPOKANE APP CON
123.75 282.25 (WEST)
133.35 263.0 (EAST)

SPOKANE TOWER
118.3 278.3

GND CON
121.9 348.6

CLNC DEL
127.55



CATEGORY		A	B	C	D
GLS PA	DA	NA			
LNAV/ VNAV	DA	2979-2 608 (700-2)			
LNAV	MDA	3020/24 649 (700-½)	3020/60 649 (700-1¼)		3020-1½ 649 (700-1½)
CIRCLING		3020-1 644 (700-1)	3020-1¾ 644 (700-1¾)		3020-2 644 (700-2)

TDZ/CL Rwy 3 and 21
REIL Rwy 7 and 25
HIRL Rwy 3-21
MIRL Rwy 7-25

WAAS CH 48801 W07A	APP CRS 072°	Rwy Idg TDZE Apt Elev	8199 2376 2376
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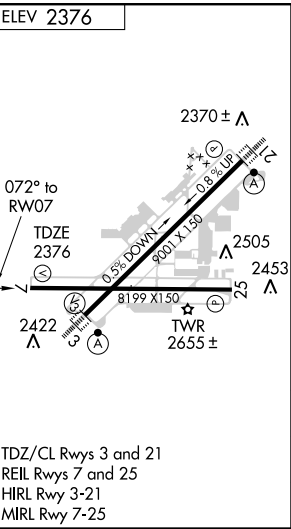
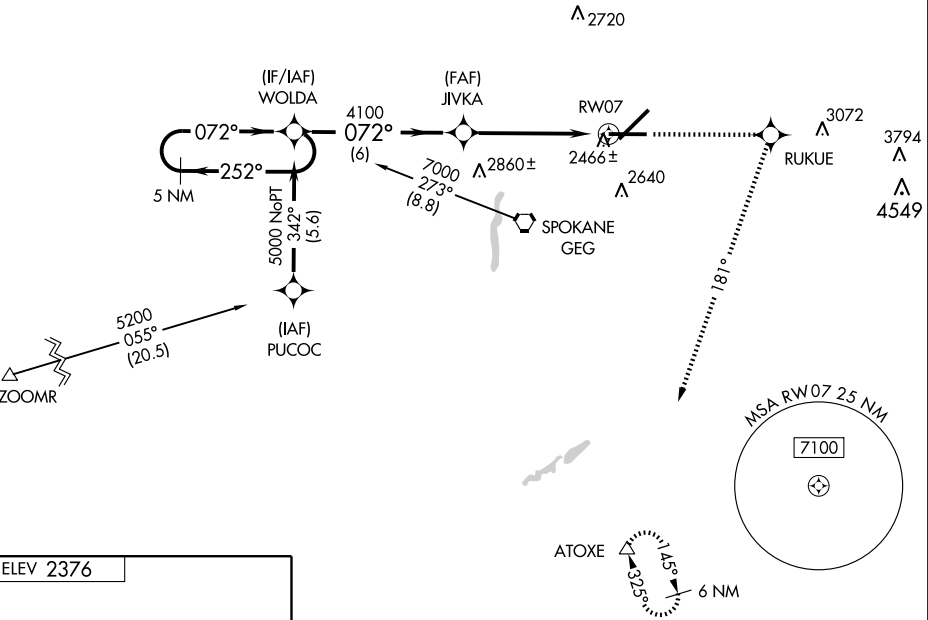
RNAV (GPS) RWY 7
SPOKANE INTL (GEG)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 44°C (111°F).
DME/DME RNP-0.3 NA.
Visibility reduction by helicopters NA.

MISSED APPROACH: Climb to 6000 direct RUKUE and via 181° track to ATOXE and hold, continue climb-in-hold to 6000.

ATIS 124.325 254.375	SPOKANE APP CON 123.75 282.25 (WEST) 133.35 263.0 (EAST)	SPOKANE TOWER 118.3 278.3	GND CON 121.9 348.6	CLNC DEL 127.55
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Procedure NA for arrivals at GEG VORTAC via V120 northbound.



5 NM Holding Pattern		6000	RUKUE	181° track	ATOXE
5000		WOLDA	JIVKA	*1.1 NM to RW07	*LNAV only
GS 3.00° TCH 60		4100	6 NM	4.1 NM	1.1
CATEGORY	A	B	C	D	
LPV DA	2626-1 250 (300-1)				
LNAV/VNAV DA	2786-1½ 410 (500-1½)				
LNAV MDA	2800-1	424 (500-1)	2800-1¼	424 (500-1¼)	
CIRCLING	2960-1	584 (600-1)	2960-1½	584 (600-1½)	2980-2 604 (700-2)

APP CRS	Rwy Idg	9001
208°	TDZE	2346
	Apt Elev	2376

RNAV (GPS) RWY 21

SPOKANE INTL (GEG)

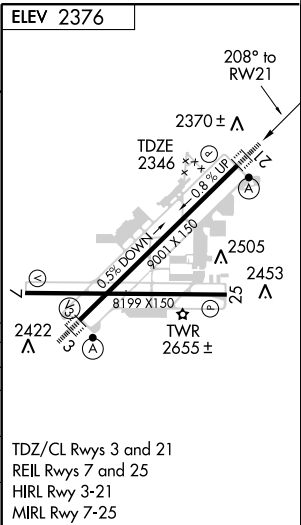
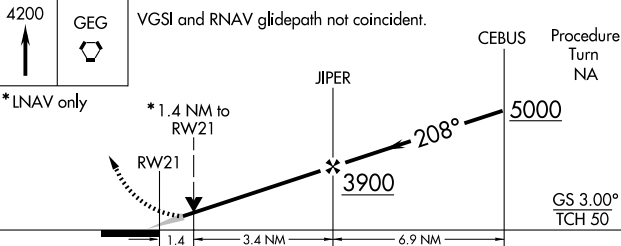
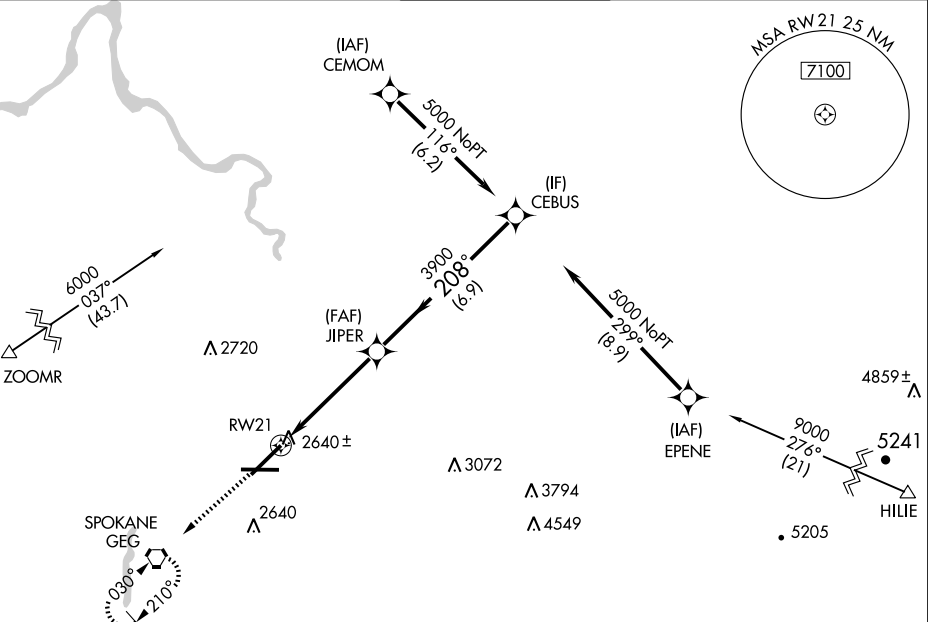
V For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 44°C (111°F).
DME/DME RNP-0.3 NA.

ALSF-2



MISSED APPROACH: Climb to 4200 direct GEG VORTAC and hold.

ATIS	SPOKANE APP CON	SPOKANE TOWER	GND CON	CLNC DEL
124.325 254.375	123.75 282.25 (WEST) 133.35 263.0 (EAST)	118.3 278.3	121.9 348.6	127.55



WAAS CH 93501 W25A	APP CRS 253°	Rwy Idg 8199 TDZE 2372 Apt Elev 2376
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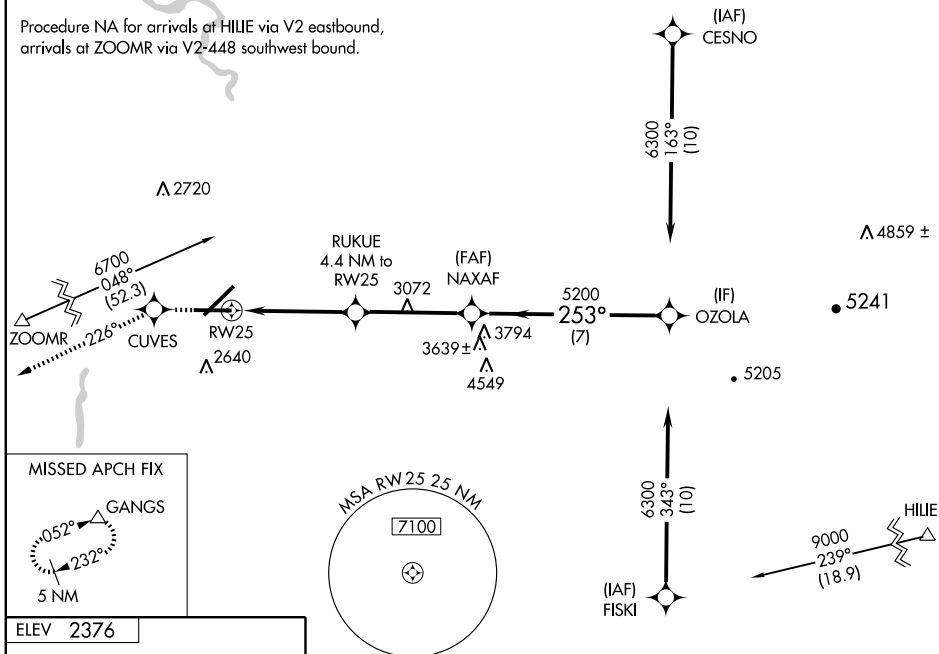
RNAV (GPS) RWY 25

1 For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 44°C (111°F).
DME/DME RNP-0.3 NA.
Visibility reduction by helicopters NA.

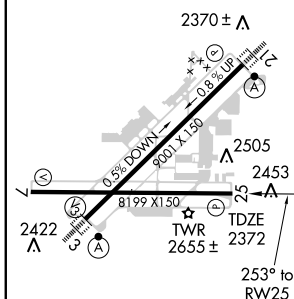
MISSED APPROACH: Climb to 5000 direct CUVES and via 226° track to GANGS and hold.

ATIS 124.325 254.375	SPOKANE APP CON 123.75 282.25 (WEST) 133.35 263.0 (EAST)	SPOKANE TOWER 118.3 278.3	GND CON 121.9 348.6	CLNC DEL 127.55
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Procedure NA for arrivals at HILIE via V2 eastbound,
arrivals at ZOOMR via V2-448 southwest bound.



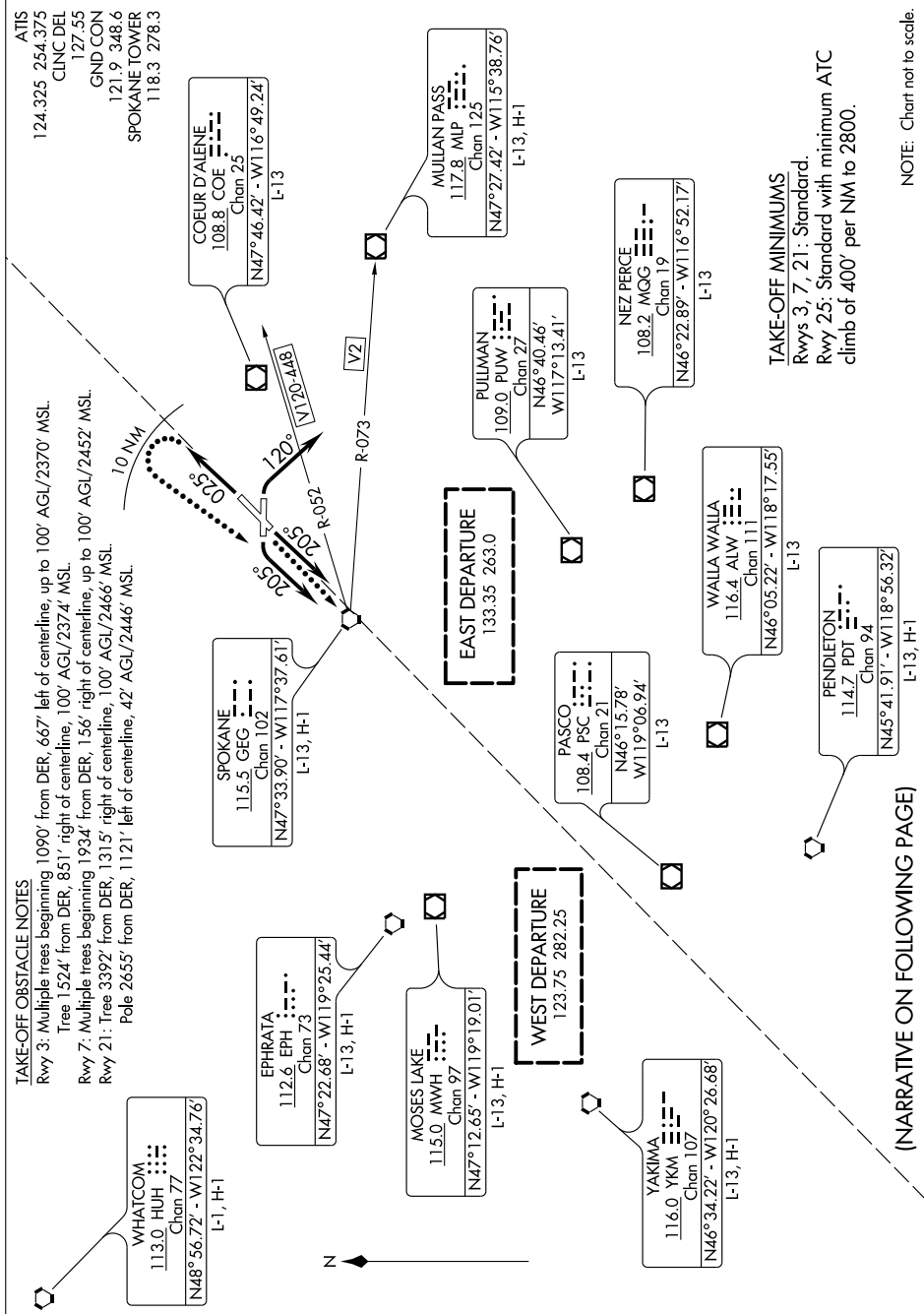
ELEV 2376



TDZ/CL Rwy 3 and 21
REIL Rwy 7 and 25
HIRL Rwy 3-21
MIRL Rwy 7-25

SPOKANE EIGHT DEPARTURE

SL-403 (FAA)

SPOKANE INTL (GEG)
SPOKANE, WASHINGTON

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

NW-1, 17 DEC 2009 to 14 JAN 2010

TAKE-OFF MINIMUMS
 Rwys 3, 7, 21: Standard.
 Rwy 25: Standard with minimum ATC
 climb of 400' per NM to 2800.

SPOKANE EIGHT DEPARTURE

SL-403 (FAA)

SPOKANE INTL (GEG)
SPOKANE, WASHINGTON

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 3: Turn left heading 025°, expect radar vectors to assigned airway/route. Thence....

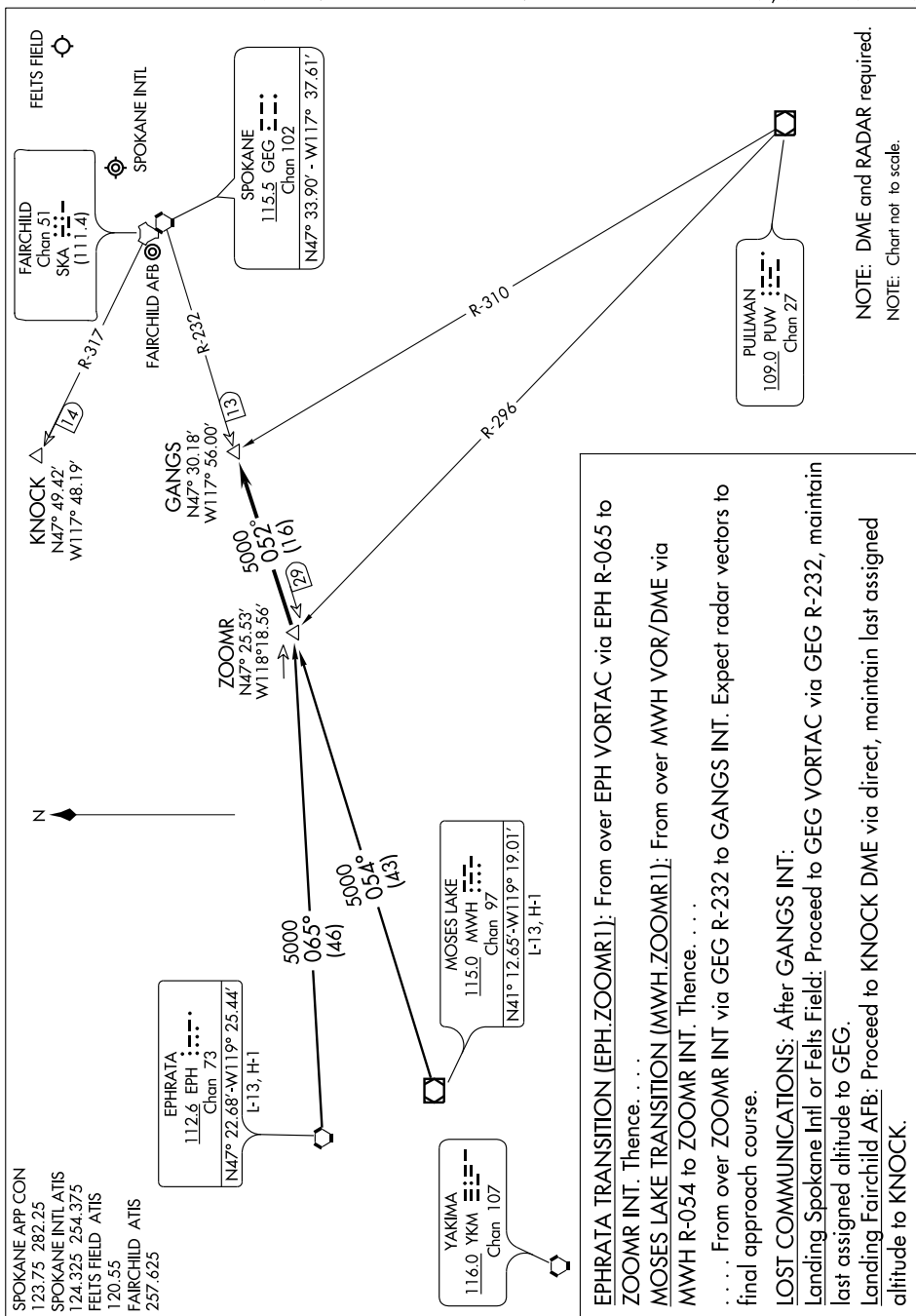
TAKE-OFF RUNWAY 7: Turn right heading 120°, expect radar vectors to assigned airway/route. Thence....

TAKE-OFF RUNWAY 21: Turn left heading 205°, expect radar vectors to assigned airway/route. Thence....

TAKE-OFF RUNWAY 25: Turn left heading 205°, expect radar vectors to assigned airway/route. Thence....

....maintain 12000' or assigned lower altitude, expect filed altitude/flight level 10 minutes after departure.

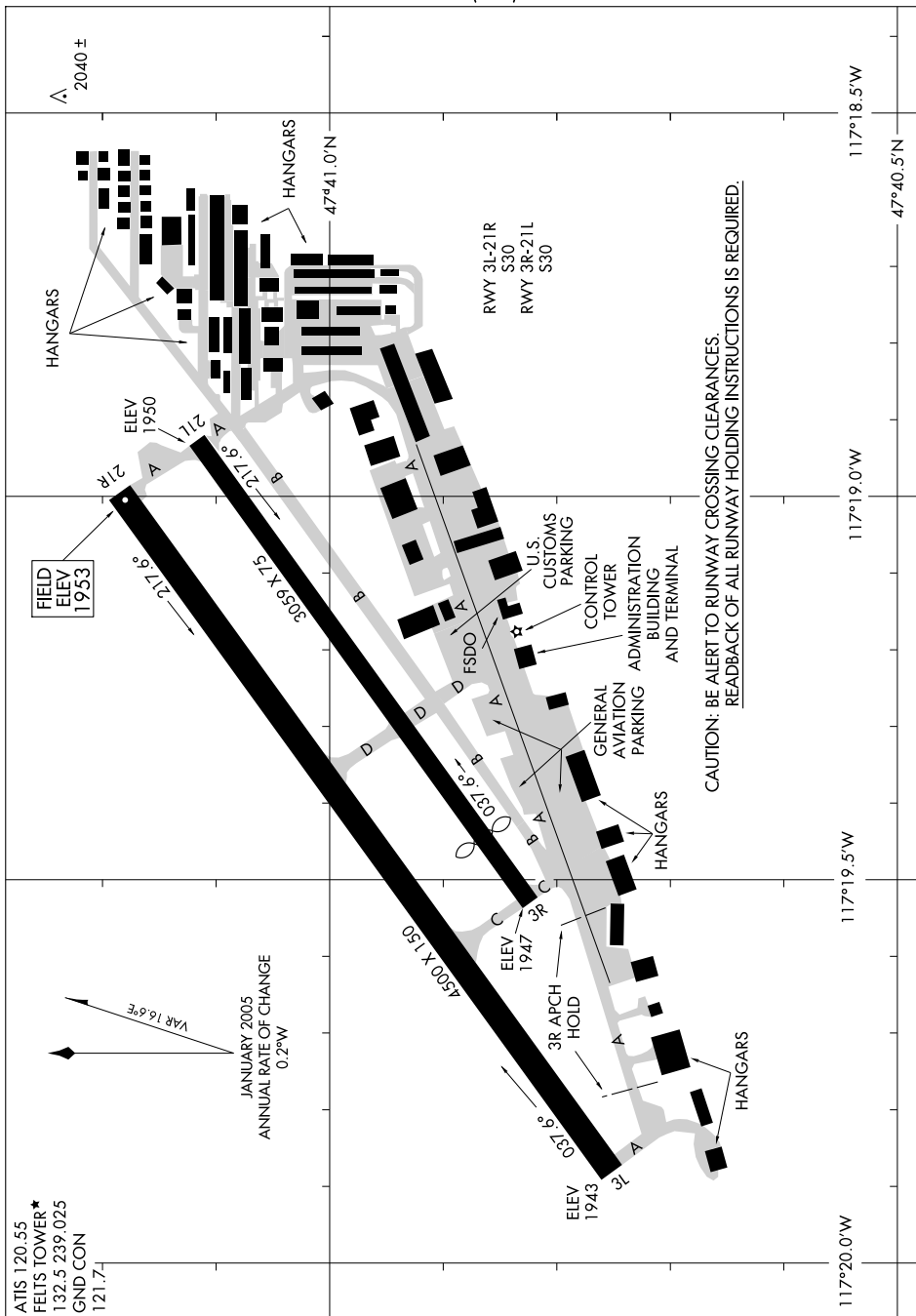
LOST COMMUNICATIONS: Climb direct GEG VORTAC before proceeding on course. Cross GEG VORTAC at or above: NE-bound V120-448 3900'; E-bound V2 4200'. Aircraft departing RWY 3, if not in contact with ATC within 10 NM after takeoff, turn left direct GEG VORTAC, cross GEG VORTAC at or above 4200', thence via assigned fix/route.



AIRPORT DIAGRAM

AL-402 (FAA)

SPOKANE/FELTS FIELD (SFF)
SPOKANE, WASHINGTON



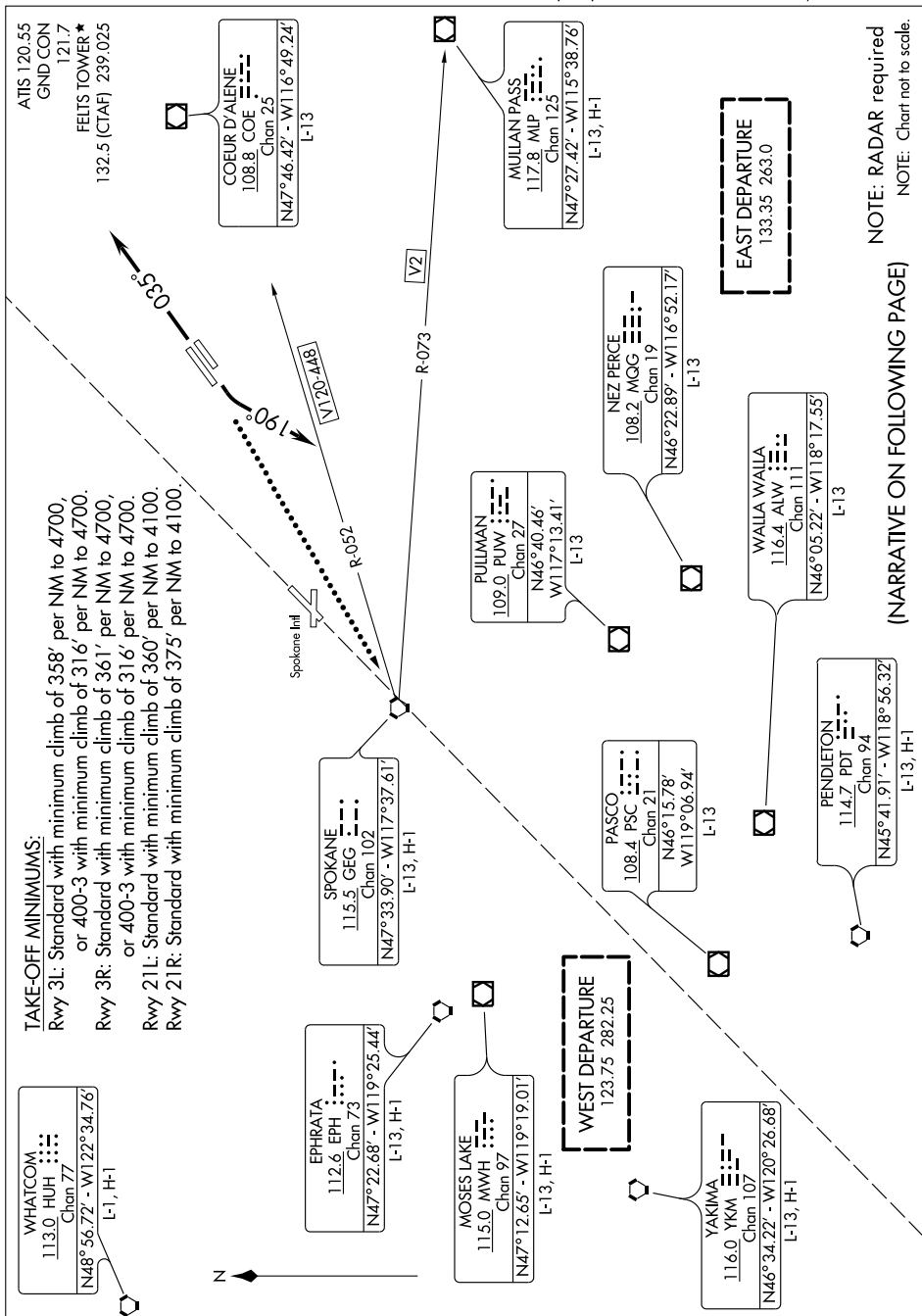
NW-1, 17 DEC 2009 to 14 JAN 2010

FELTS ONE DEPARTURE

SL-402 (FAA)

SPOKANE/FELTS FIELD (SFF)

SPOKANE, WASHINGTON





DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 3L/R: Climb heading 035°, expect radar vectors to assigned airway/route. Thence....

TAKE-OFF RUNWAY 21L/R: Turn left heading 190°, expect radar vectors to assigned airway/route. Thence....

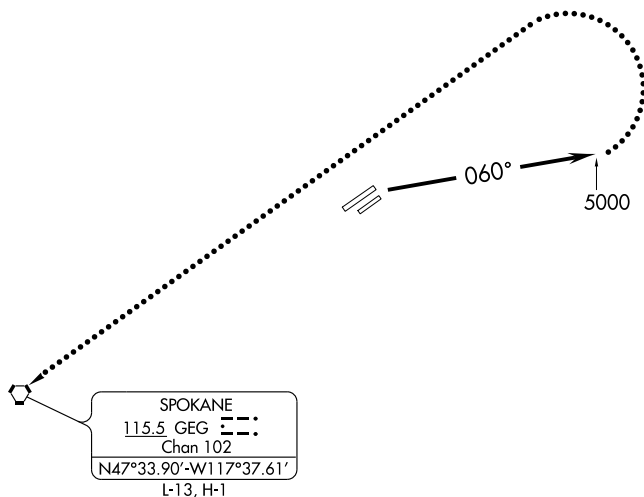
....maintain 12000' or assigned lower altitude, expect filed altitude/flight level 10 minutes after departure.

LOST COMMUNICATIONS: Climb direct GEG VORTAC before proceeding on course.
Cross GEG VORTAC at or above: NE-bound V1 20-448 3900'; E-bound V2 4200'.

TAKE-OFF OBSTACLE NOTES

- Rwy 3L: Multiple trees beginning 5000' from DER, 530' left of centerline, up to 100' AGL/2295' MSL.
Multiple trees beginning 1854' from DER, 773' right of centerline, up to 100' AGL/2037' MSL.
- Rwy 3R: Multiple trees beginning 5016' from DER, 1033' left of centerline, up to 100' AGL/2295' MSL.
Multiple trees beginning 1870' from DER, 271' right of centerline, up to 100' AGL/2037' MSL.
Hangar 92' from DER, 341' right of centerline, 35' AGL/1967' MSL.
NDB 925' from DER, 270' right of centerline, 10' AGL/1987' MSL.
- Rwy 21L: Multiple trees beginning 926' from DER, 184' left of centerline, up to 100' AGL/2006' MSL.
Multiple bldgs and OL on bldg 316' from DER, 110' left of centerline, up to 35' AGL/1992' MSL.
Elevator 4080' from DER, 598' left of centerline, 50' AGL/2080' MSL.
- Rwy 21R: Multiple trees beginning 189' from DER, 404' right of centerline, up to 100' AGL/1979' MSL.
Multiple OL on bldgs and hangars 204' from DER, 230' left of centerline, up to 35' AGL/1973' MSL.
Elevator 2655' from DER, 1097' left of centerline, 50' AGL/2080' MSL.
Multiple poles and OL on poles 659' from DER, 2' left of centerline, up to 42' AGL/1982' MSL.
Multiple poles and OL on poles 1252' from DER, 13' right of centerline, up to 42' AGL/1982' MSL.

ATIS 120.55
GND CON
121.7
FELTS TOWER ★
132.5 (CTAF) 239.025
SPOKANE DEP CON
133.35 263.0



NOTE: This SID requires a minimum climb of 340' per NM to 5000' (850FPM/150K or 1133FPM/200K), or, 2600' ceiling and 2 miles visibility.

NOTE: Chart not to scale.



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 3L/R: Climb via heading 060° until reaching 5000' for vector to (assigned route) or (fix).

LOST COMMUNICATIONS: If not in contact with departure control after leaving 3000', continue climb to 5000' turn left proceed direct to GEG VORTAC and thence on course.

SPOKANE APP CON

133.35 263.0

SPOKANE INIT ATIS

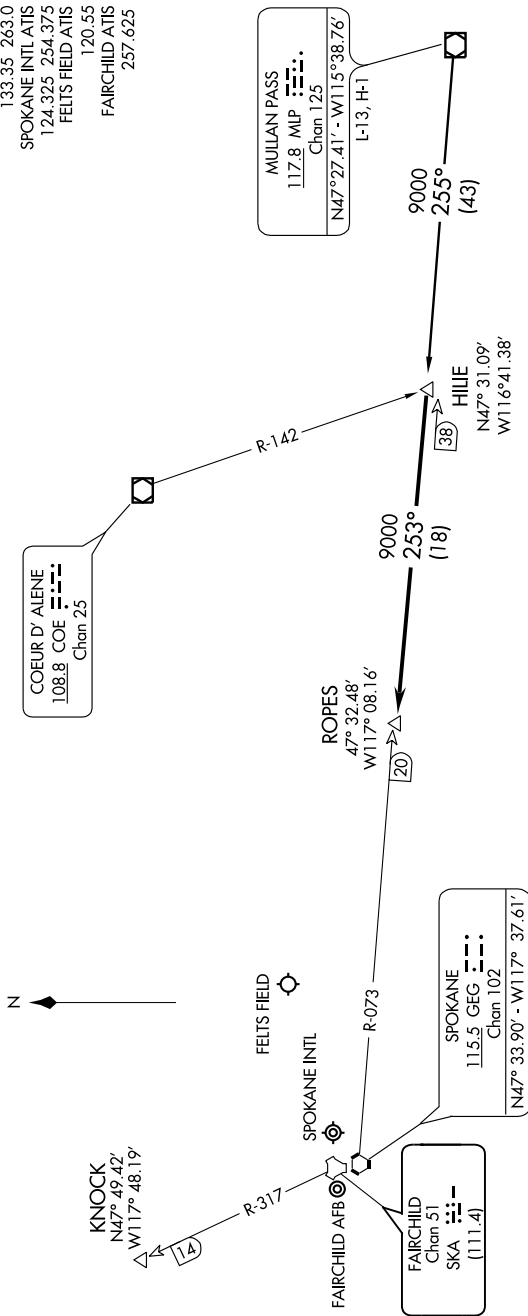
124.325 254.375

FELTS FIELD ATIS

120.55

FAIRCHILD ATIS

257.625



MULLAN PASS TRANSITION (MLP.HILIE1): From over MLP VOR/DME via MLP R-255 to HILIE INT. Thence. . . . From over HILIE INT via GEG R-073 to ROPES INT. Expect radar vectors to final approach course.

LOST COMMUNICATIONS: After ROPES INT:
Landing Spokane Intl or Felts Field: Proceed to GEG VORTAC via GEG R-073, maintain last altitude to GEG.
Landing Fairchild AFB: Proceed to KNOCK DME via direct, maintain last assigned altitude to KNOCK.

LOC/DME I-FLZ <u>111.7</u> Chan 54	APP CRS 218°	Rwy Idg 4500 TDZE 1953 Apt Elev 1953
--	------------------------	---

ILS/DME RWY 21R

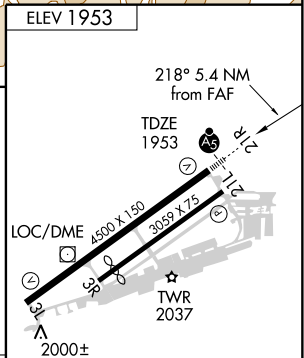
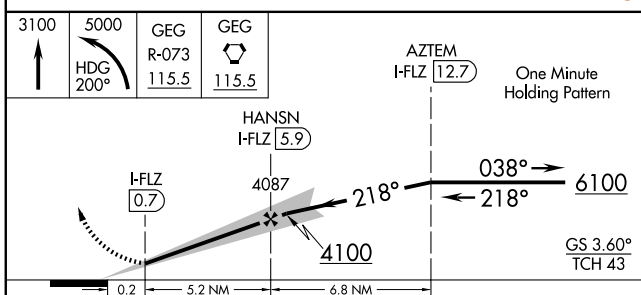
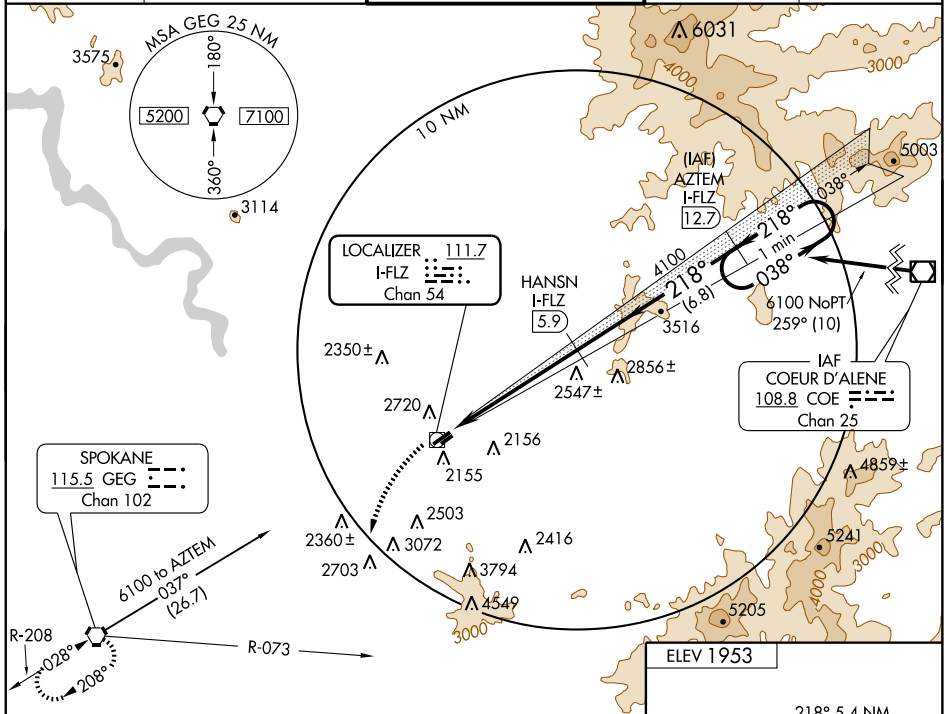
SPOKANE / FELTS FIELD (SFF)

T Circling not authorized northwest of Rwy 3L-21R.
A Inoperative table does not apply.

MALSR

MISSED APPROACH: Climb to 3100 then climbing left turn to 5000 via heading 200° and GEG R-073 to GEG VORTAC and hold.

ATIS 120.55	SPOKANE APP CON 133.35 263.0	FELTS TOWER ★ 132.5 (CTAF) 239.025	GND CON 121.7	UNICOM 122.95
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CATEGORY	A	B	C	D
S-ILS 21R	2223-¾ 270 (300-¾)			NA
S-LOC 21R	2860-1¼ 907 (1000-1¼)		2860-2¾ 907 (1000-2¾)	NA
CIRCLING	2860-1¼ 907 (1000-1¼)		2860-2¾ 907 (1000-2¾)	NA

REIL Rwy 3L **L**
MIRL Rwy 3L-21R

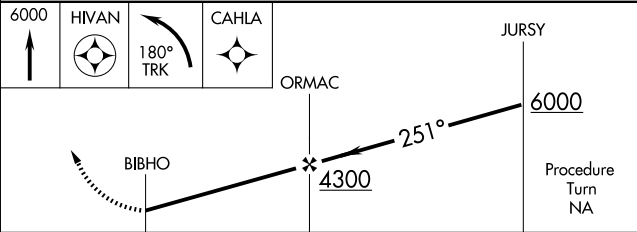
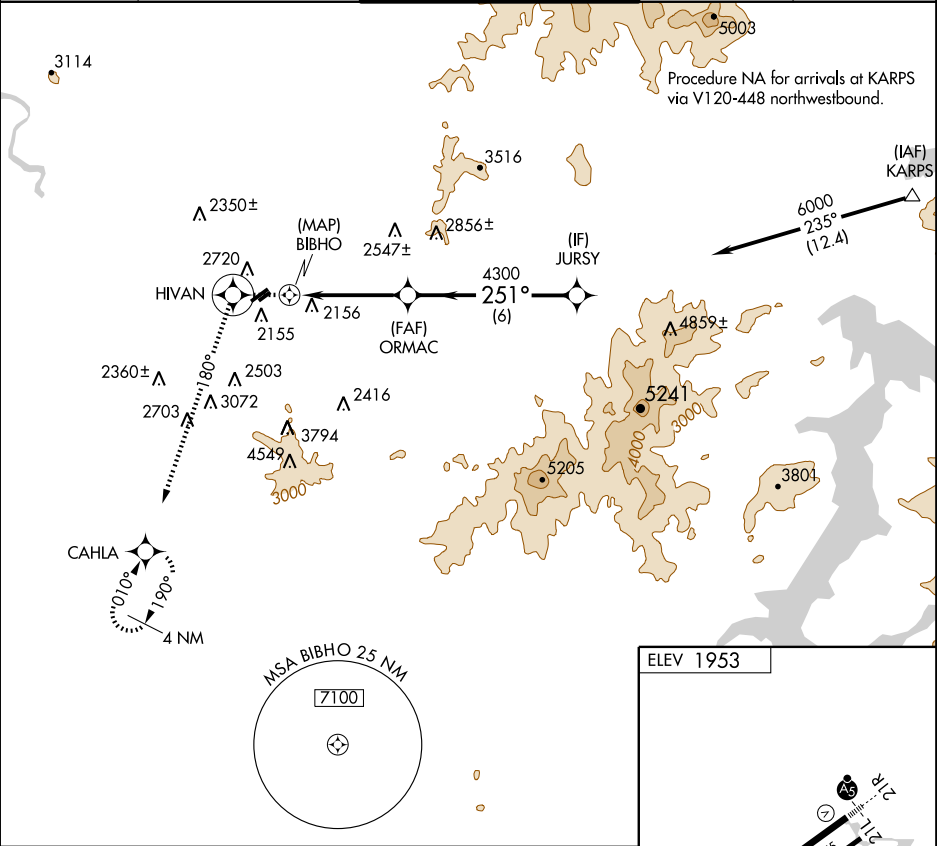
APP CRS	Rwy Idg	N/A
251°	TDZE	N/A
	Apt Elev	1953

RNAV (GPS)-A

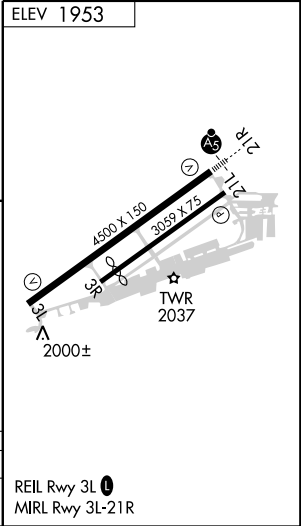
SPOKANE / FELTS FIELD (SFF)

 	DME/DME RNP- 0.3 NA. Circling NA northwest of Rwy 3L-21R.	MISSED APPROACH: Climb to 6000 direct HIVAN and left turn via 180° track to CAHLA and hold.
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ATIS 120.55	SPOKANE APP CON 133.35 263.0	FELTS TOWER ★ 132.5 (CTAF) 239.025	GND CON 121.7	UNICOM 122.95
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CATEGORY	A	B	C	D
CIRCLING	2880-1¼ 927 (1000-1¼)	2880-2¾ 927 (1000-2¾)	2880-3 927 (1000-3)	2880-3 927 (1000-3)

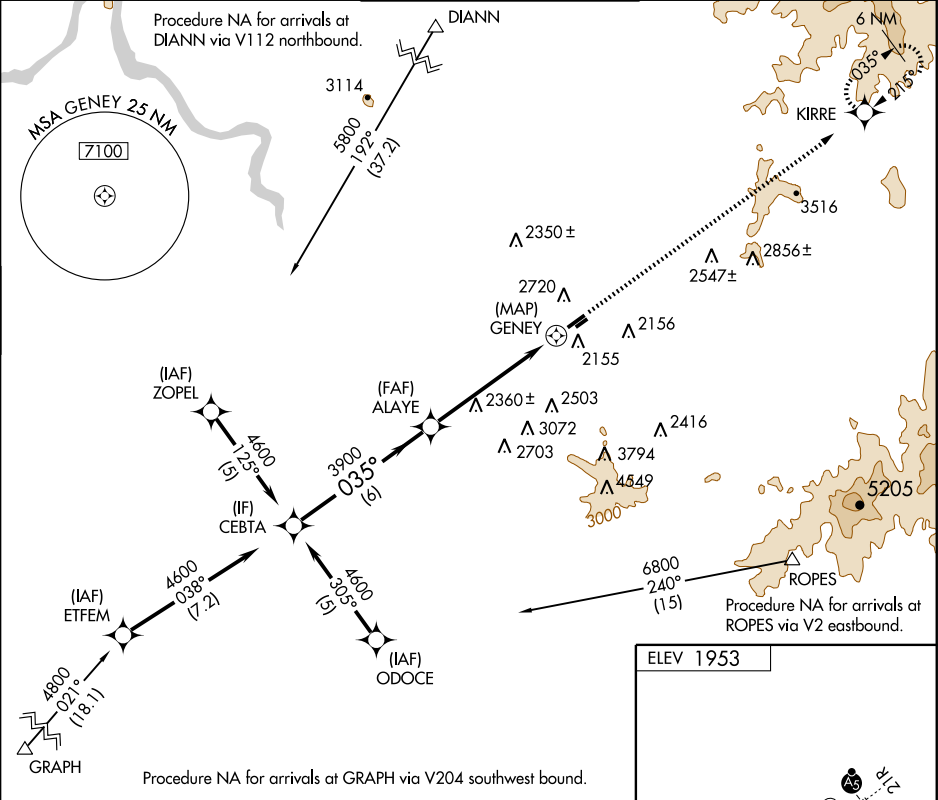


APP CRS	Rwy Idg	4500
035°	TDZE	1945
	Apt Elev	1953

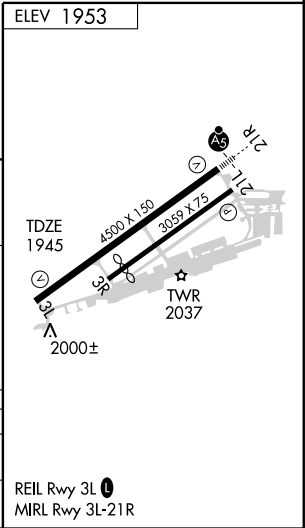
RNAV (GPS) RWY 3L

SPOKANE / FELTS FIELD (SFF)

<div><div>V</div><div>A</div></div>	Circling NA northwest of Rwy 3L-21R. Circling NA at night to Rwy 3R-21L. DME/DME RNP- 0.3 NA.	MISSED APPROACH: Climb to 7100 direct KIRRE and hold.		
ATIS 120.55	SPOKANE APP CON 133.35 263.0	FELTS TOWER ★ 132.5 (CTAF) 0 239.025	GND CON 121.7	UNICOM 122.95



	CEBTA	ALAYE	GENEY	7100	KIRRE
	4600			↑	✧
Procedure Turn NA	035°	3900	2.99° TCH 50		
	6 NM	5.5 NM	0.5 NM		
CATEGORY	A	B	C	D	
RNAV MDA	2880-1¼ 935 (1000-1¼)		2880-2¾ 935 (1000-2¾)	2880-3 935 (1000-3)	
CIRCLING	2880-1¼ 927 (1000-1¼)		2880-2¾ 927 (1000-2¾)	2880-3 927 (1000-3)	



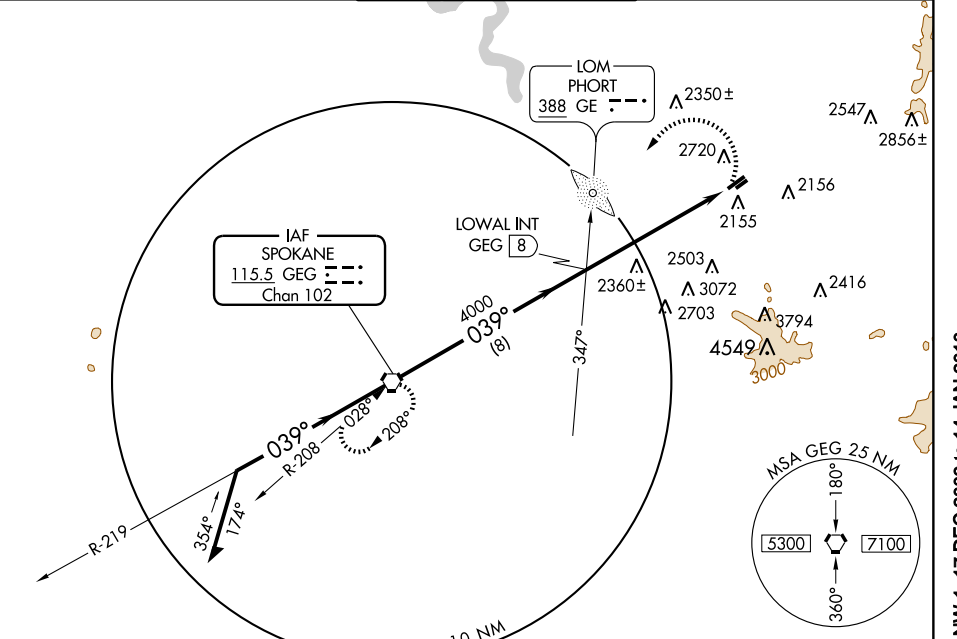
▼

▲

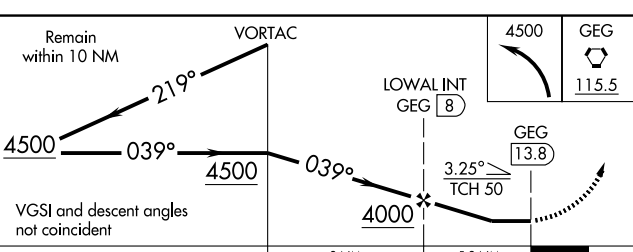
Circling not authorized northwest of Rwy 3L-21R.

MISSED APPROACH: Climbing left turn to 4500 direct GEG VORTAC and hold.

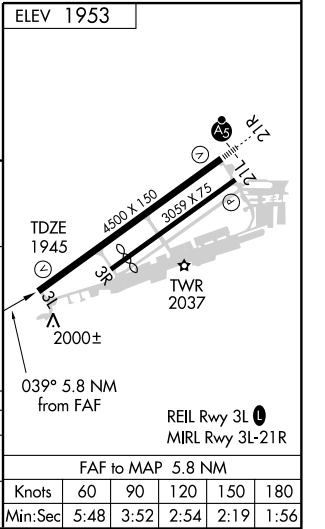
ATIS 120.55	SPOKANE APP CON 133.35 263.0	FELTS TOWER ★ 132.5 (CTAF) 239.025	GND CON 121.7	UNICOM 122.95
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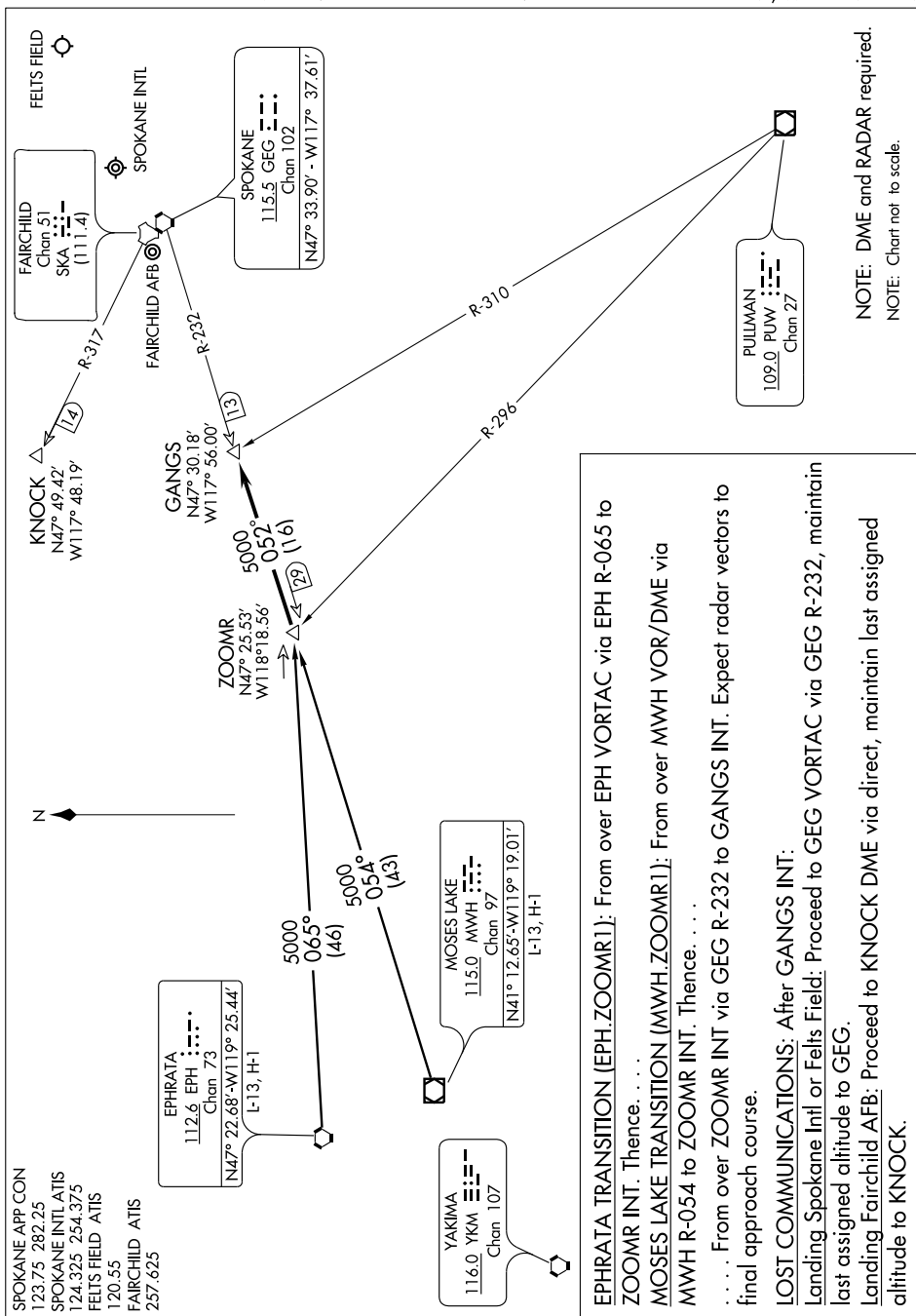
ADF or DME REQUIRED



CATEGORY	A	B	C	D
S-3L	2920-1¼ 975 (1000-1¼)	2920-1½ 975 (1000-1½)	2920-3 975 (1000-3)	
CIRCLING	2920-1¼ 967 (1000-1¼)	2920-1½ 967 (1000-1½)	2920-3 967 (1000-3)	



FAF to MAP 5.8 NM					
Knots	60	90	120	150	180
Min:Sec	5:48	3:52	2:54	2:19	1:56

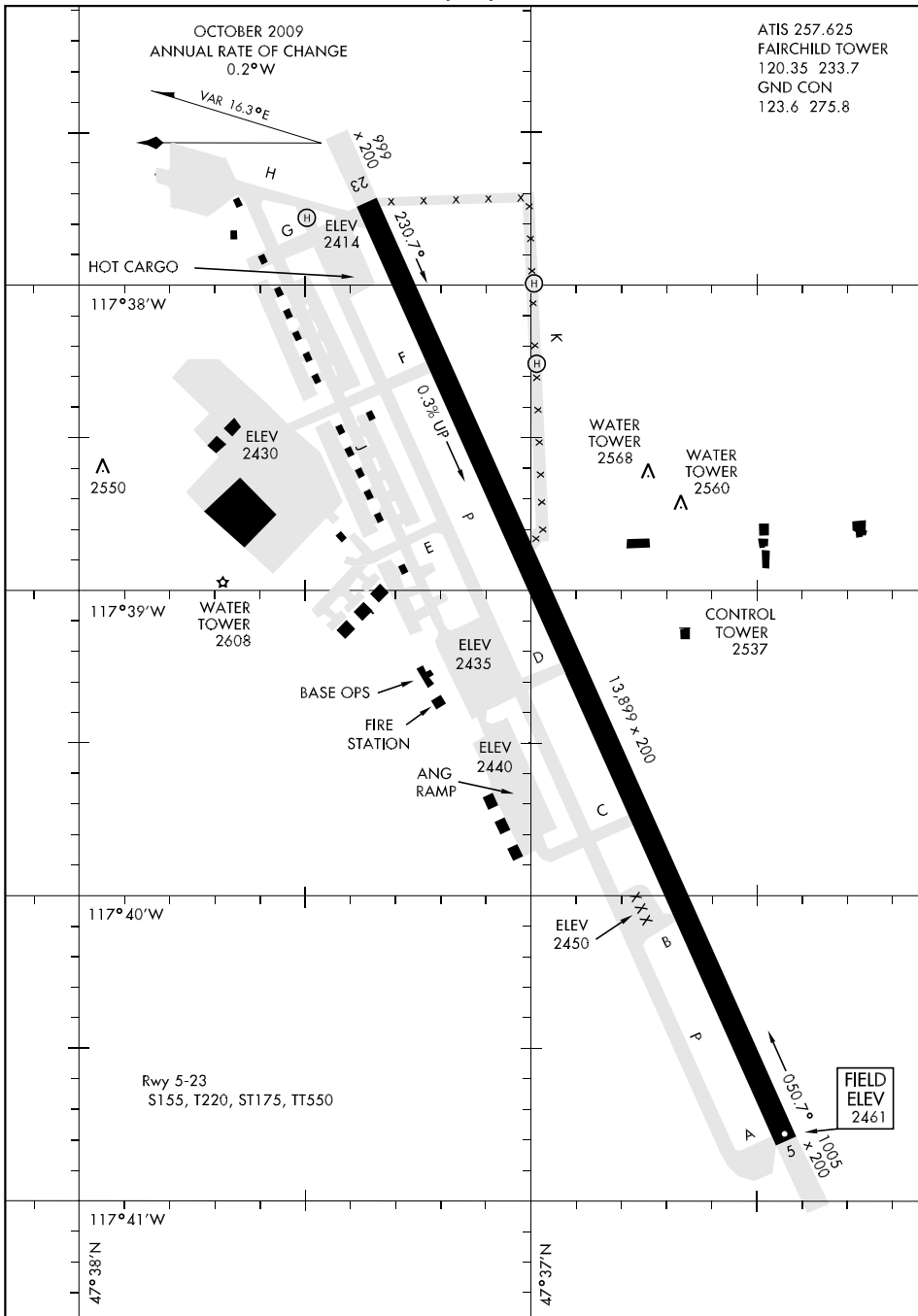


AIRPORT DIAGRAM

AFD-553 [USAF]

SPOKANE, WASHINGTON

NW-1, 17 DEC 2009 to 14 JAN 2010



AIRPORT DIAGRAM

SPOKANE, WASHINGTON

SPOKANE APP CON

133.35 263.0

SPOKANE INIT ATIS

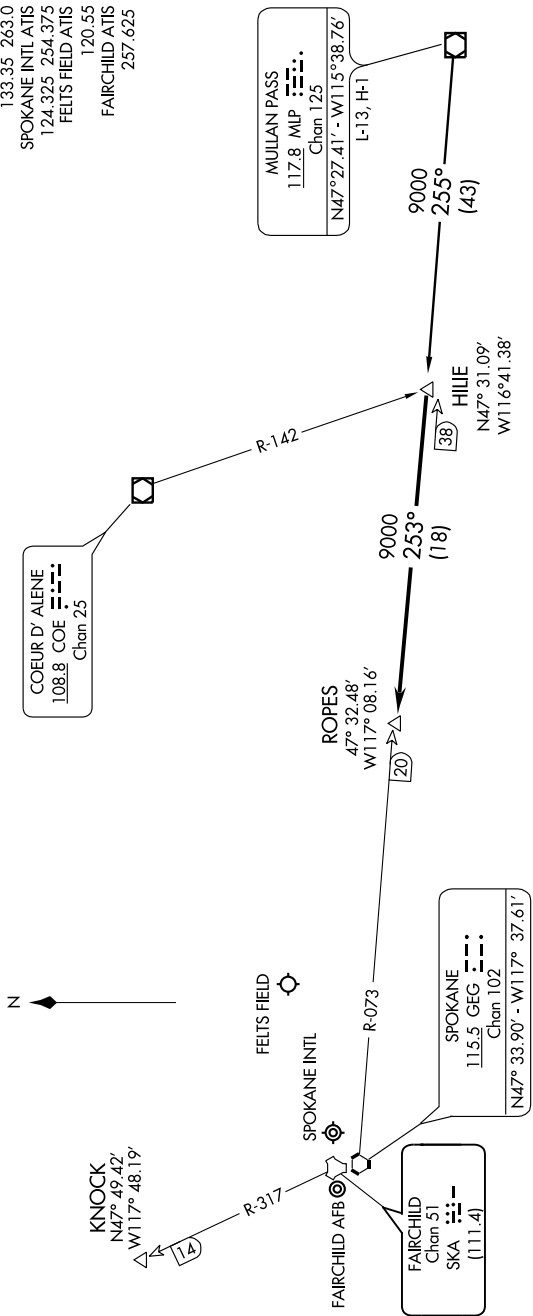
124.325 254.375

FELTS FIELD ATIS

120.55

FAIRCHILD ATIS

257.625



MULLAN PASS TRANSITION (MLP.HILIE1): From over MLP VOR/DME via MLP R-255 to HILIE INT. Thence. . .

. . . From over HILIE INT via GEG R-073 to ROPES INT. Expect radar vectors to final approach course.

LOST COMMUNICATIONS: After ROPES INT:

Landing Spokane Intl or Felts Field: Proceed to GEG VORTAC via GEG R-073, maintain last altitude to GEG.

Landing Fairchild AFB: Proceed to KNOCK DME via direct, maintain last assigned altitude to KNOCK.

NOTE: DME and RADAR required.

NOTE: Chart not to scale.

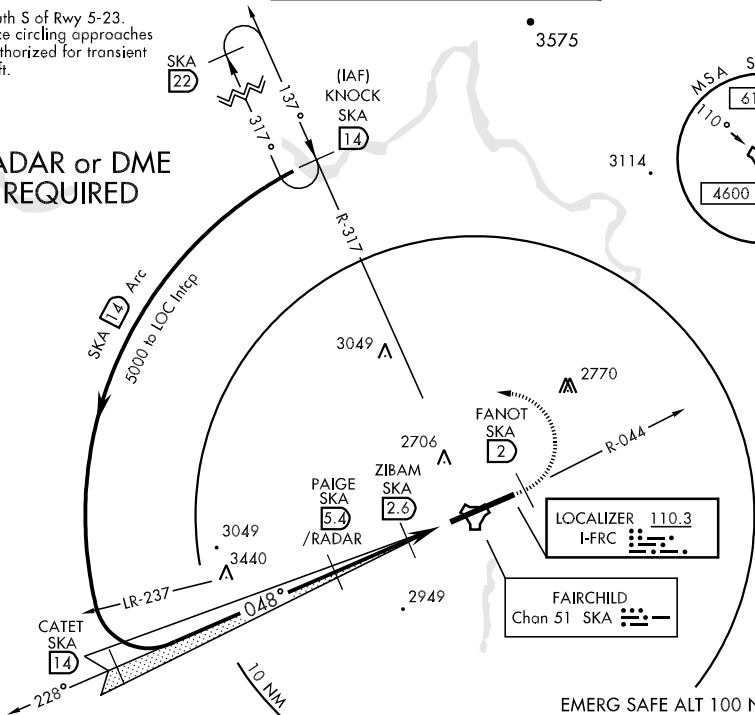
AL-553 [USAF]

ALSF-1

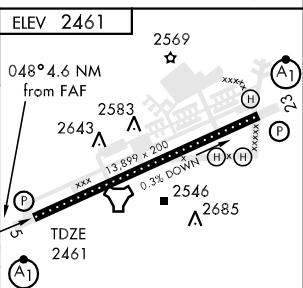
MISSED APPROACH: Climb to 6000 via SKA R-044. At SKA 2 DME turn left hdg 280° to intcp SKA R-317 to KNOCK and hold, continue climb in hold to 6000.

GND CON
123.6 275.8

† Not auth S of Rwy 5-23.
Practice circling approaches
not authorized for transient
aircraft



EMERG SAFE ALT 100 NM 10,900



FAF to MAP 4.1 NM					
Knots	60	90	120	150	180
Min:Sec	4:06	2:44	2:03	1:38	1:22

LOC I-SKA
110.3

PCH CRS
228 °

Rwy Idg	13,899
TDZE	2422
Arpt Elev	2461

AL-553 [USAF]

FAIRCHILD AFB (KSKA)

T * When ALS inop, increase vis to $\frac{3}{4}$ mile, RVR to 40.
When TDZL/CL lights inop, increase CAT ABCD RVR to 24.
** When ALS inop, increase vis to 1 mile, RVR to 50.

ALSF-1

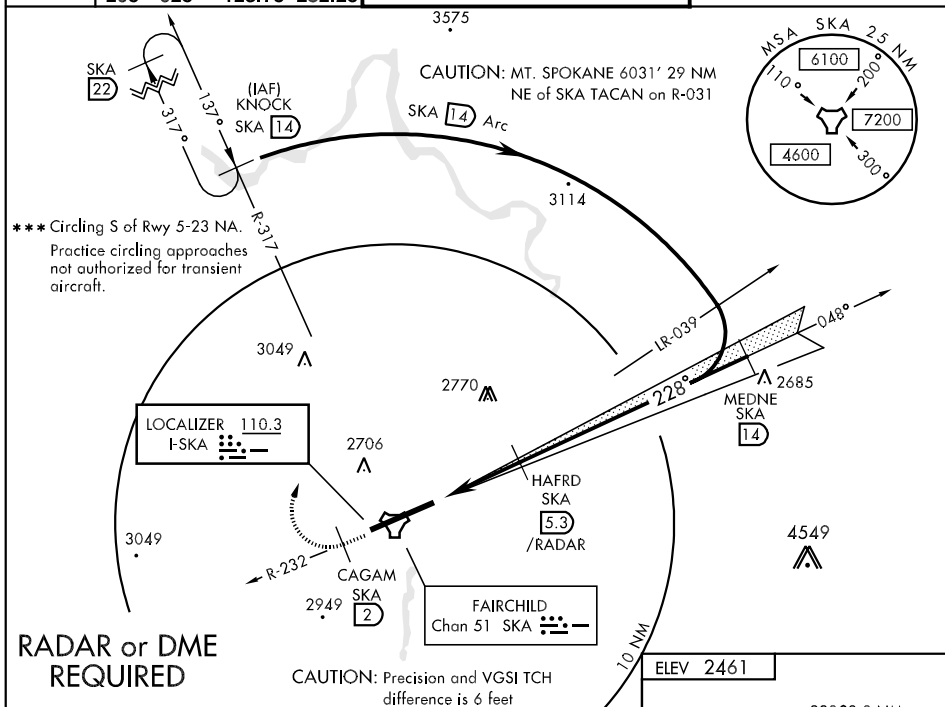
MISSED APPROACH: Climb to 6500 via SKA R-232. At SKA 2 DME, turn right heading 340° to intcp SKA R-317 to KNOCK and hold, continue climb in hold to 6500.

ATIS
257.625

SPOKANE APP CON		
026°-204°	133.35	263.0
205°-025°	123.75	282.25

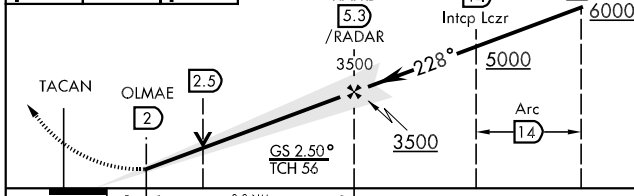
FAIRCHILD TOWER
120.35 233.7

GND CON
123.6 275.8



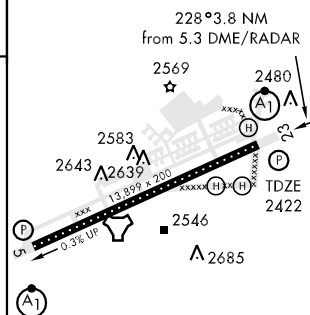
EMERG SAFE ALT 100 NM 10,900

6500 SKA R-232	CAGAM SKA 2	hdg 340°
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CATEGORY	A	B	C	D	E
S-ILS 23 *	2622/18 200 (200-½)				2622/24 200(200-½)
S-LOC 23 **	2720/24 298 (300-½)		2720/40 298 (300-¾)		
CIRCLING ***	3480-1¼ 1019 (1100-1¼)	3480-1½ 1019 (1100-1½)	3480-3 1019 (1100-3)		

ELEV 2461



HIRL Rwy 5-23
TDZL/CL Rwy 5-23

FAF to MAP 3.3 NM					
Knots	60	90	120	150	180
Min:Sec	3:18	2:12	1:39	1:19	1:06

SPOKANE, WASHINGTON
Orig 09295

47°37'N-117°39'W

FAIRCHILD AFB (KSKA)

U.S. or LOC PW/V 23

TACAN SKA Chan 51	APCH CRS 057°	Rwy Idg 13,899 TDZE 2461 Arpt Elev 2461
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AL-553 [USAF]

FAIRCHILD AFB (KSKA)

▼ * When ALS inop, CAT ABC vis to 1 mile, RVR to 50,
CAT DE vis to 1¼ miles, RVR to 60.



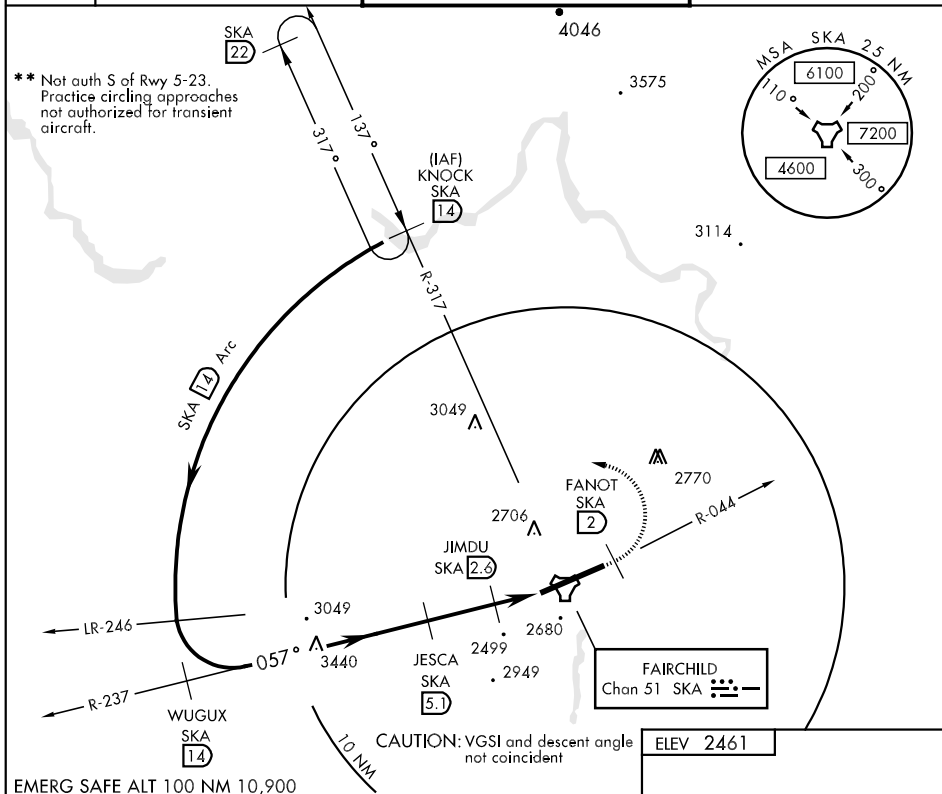
MISSED APPROACH: Climb to 6000 via SKA R-044.
At SKA 2 DME turn left hdg 280° to intcp SKA R-317
to KNOCK and hold, continue climb in hold to 6000.

ATIS 257.625	SPOKANE APP CON 026°-204° 133.35 263.0 205°-025° 123.75 282.25
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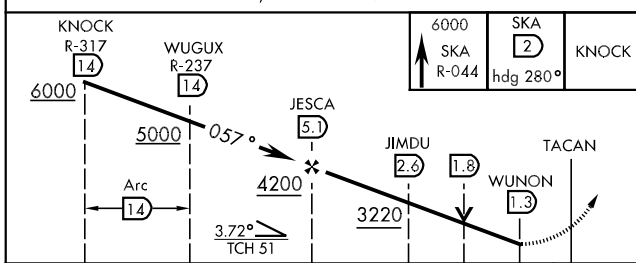
FAIRCHILD TOWER
120.35 233.7

GND CON
123.6 275.8

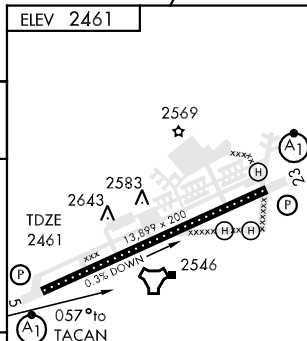
** Not auth S of Rwy 5-23.
Practice circling approaches
not authorized for transient
aircraft.




EMERG SAFE ALT 100 NM 10,900

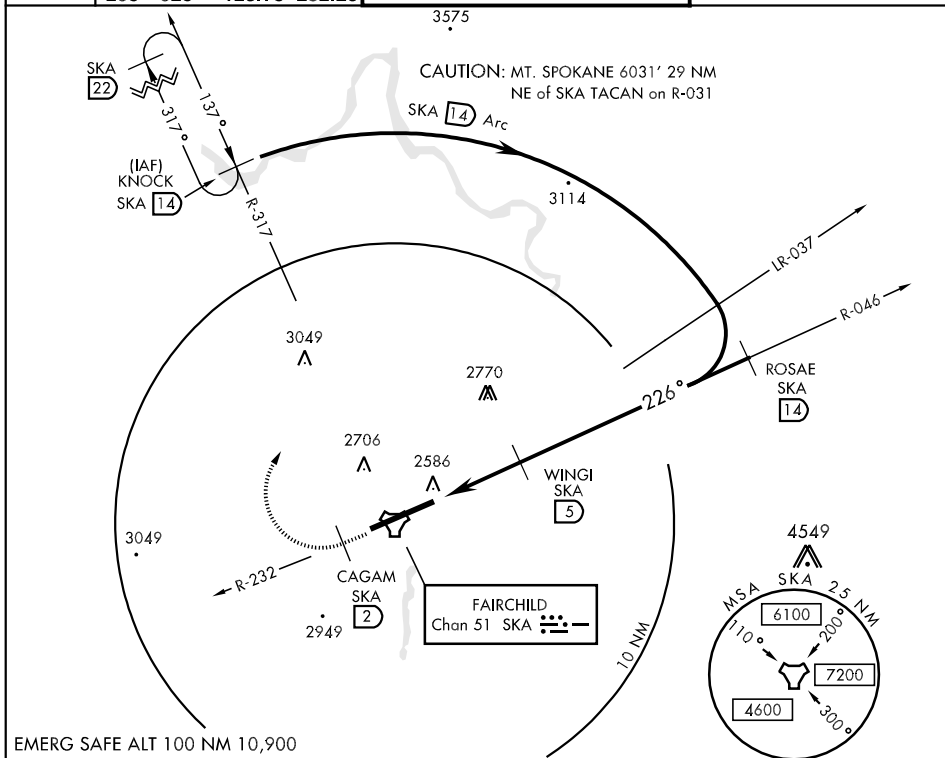


CATEGORY	A	B	C	D	E
S-5 *	2820/24	359 (400-½)	2820/40	359 (400-¾)	
CIRCLING **	3480-1¼ 1019 (1100-1¼)	3480-1½ 1019 (1100-1½)	3480-3	1019 (1100-3)	



HIRL Rwy 5-23
TDZL/CL Rwy 5-23

TACAN SKA Chan 51	APCH CRS 226°	Rwy Idg 13,899 TDZE 2422 Arpt Elev 2461	AL-553 [USAF]	TACAN RWY 23 FAIRCHILD AFB (KSKA)	
<p>▼ * When ALS inop, increase CAT abv vis to 1 mile, RVR to 50, CAT CD vis to 1¼ mile, RVR to 60, CAT E vis to 1½ miles. ** Not auth S of Rwy 5-23. Practice circling approaches not authorized for transient aircraft.</p>			ALSF-1 	MISSED APPROACH: Climb to 6500 via SKA R-232. At SKA 2 DME, turn right heading 340° to intercept SKA R-317 to KNOCK and hold, continue climb in hold to 6500.	
ATIS 257.625	SPOKANE APP CON 026°-204° 133.35 263.0 205°-025° 123.75 262.25		FAIRCHILD TOWER 120.35 233.7		GND CON 123.6 275.8



6500
SKA R-232
CAGAM SKA 2
hdg 340°

VGS and decent angles not coincident

TACAN

ITODE 2.9

WINGI 5

ROSAR R-046 14

KNOCK R-317 14

6000

226°

5000

3500

≤ 2.7°

TCH 50

Arc 14

ELEV 2461

TDZE 2422

2569

2583

2643

17.899 x 250

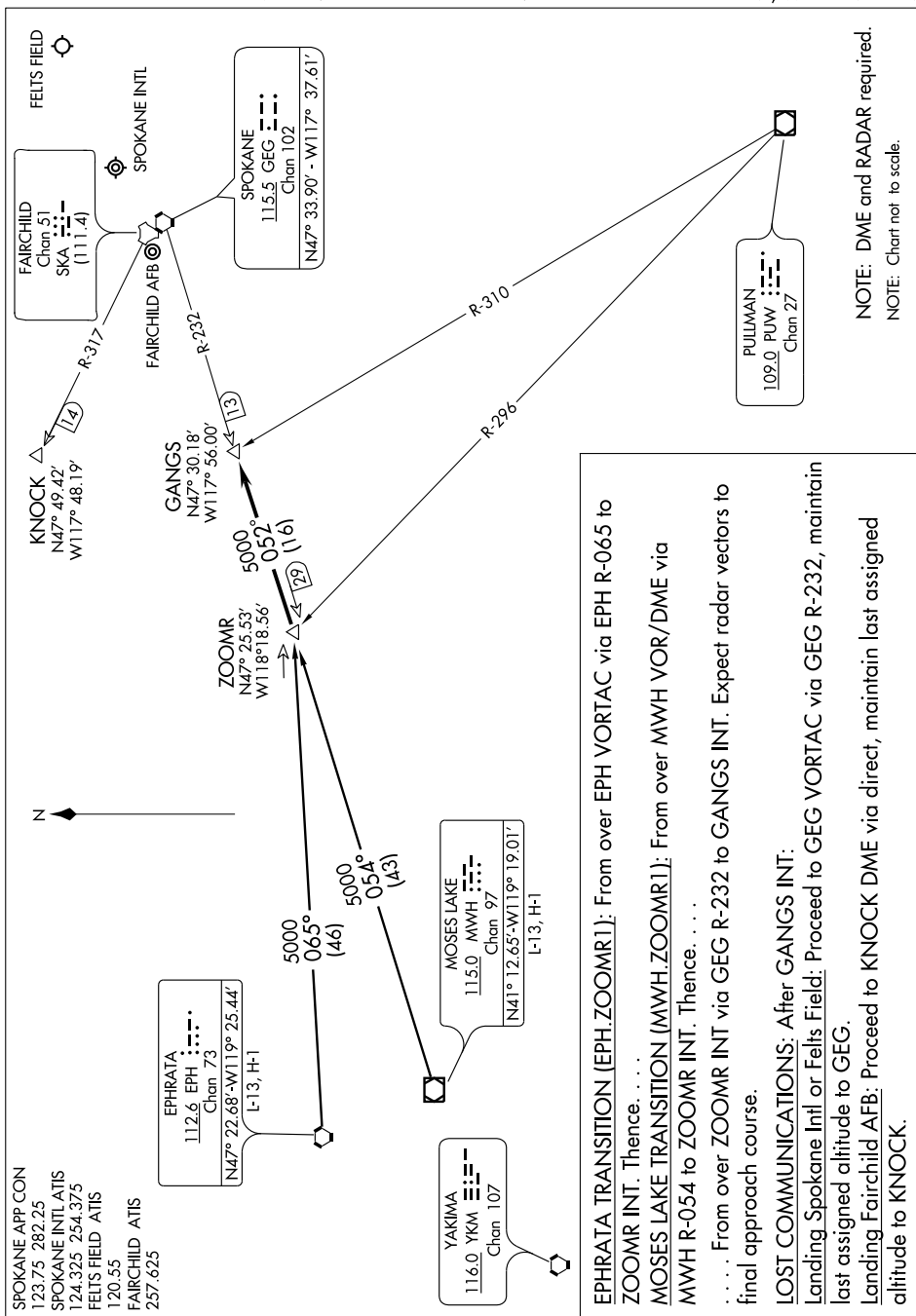
2546

0.3% UP

226° to TACAN

CATEGORY	A	B	C	D	E
S-TAC 23 *	2840/24 418 (400-½)	2840/40 418 (400-¾)	2840/50 418 (400-1)		
CIRCLING **	3480-1¼ 1019 (1100-1¼)	3480-1½ 1019 (1100-1½)	3480-3 1019 (1100-3)		

HIRL Rwy 5-23
TDZL/CL Rwy 5-23



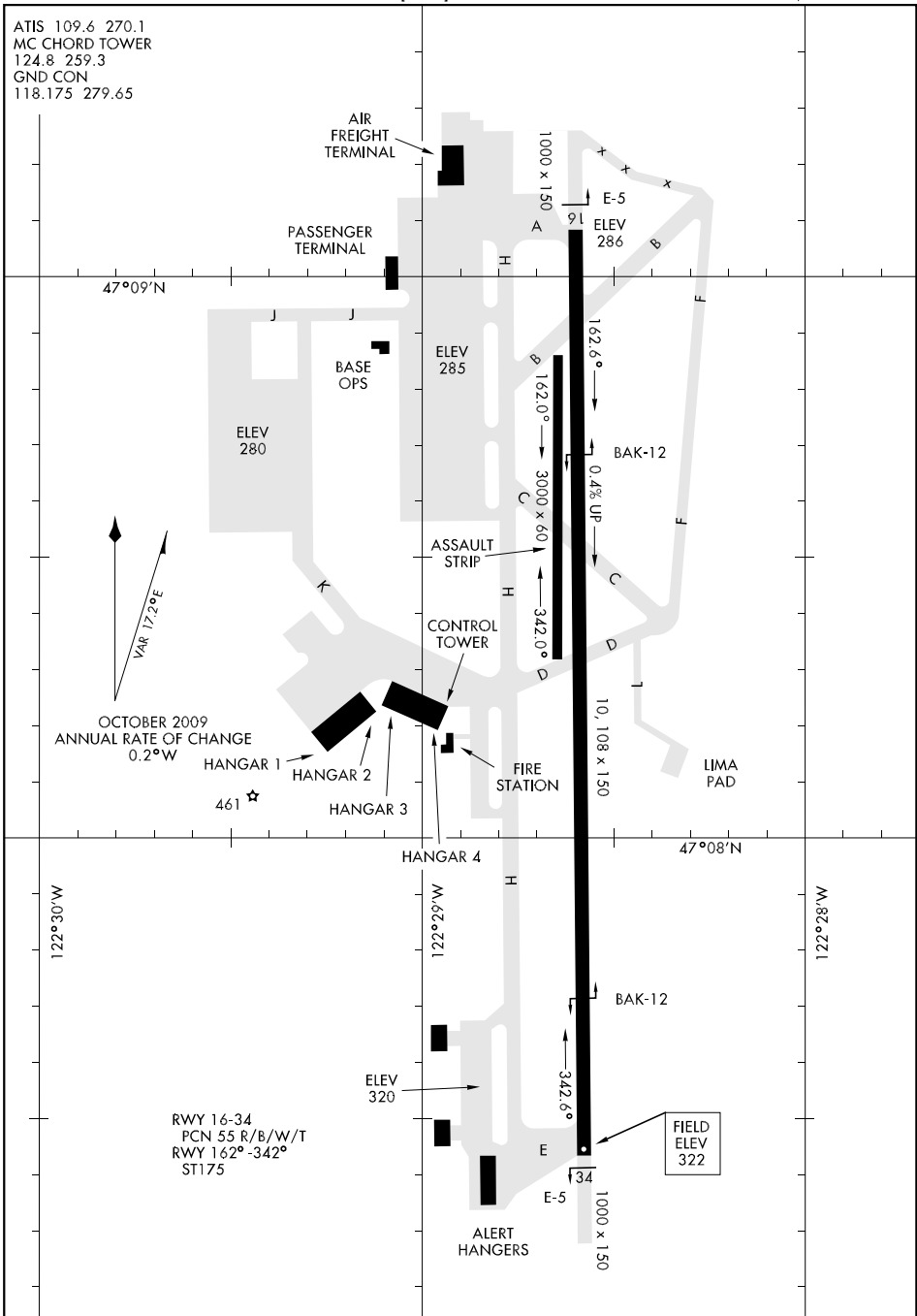
AIRPORT DIAGRAM

[USAF] AFD-414

TACOMA, WASHINGTON

ATIS 109.6 270.1
MC CHORD TOWER
124.8 259.3
GND CON
118.175 279.65

NW-1, 17 DEC 2009 to 14 JAN 2010



AIRPORT DIAGRAM

TACOMA, WASHINGTON

ALDER-NINE DEPARTURE (ALDER9 • ALDER)

MC CHORD VORTAC (R-151)
TACOMA, WASHINGTON

ATIS
109.6 270.1
GND CON
118.175 279.65
MC CHORD TOWER
124.8 259.3
SEATTLE DEP CON
126.5 391.9

SL-414 [USAF]

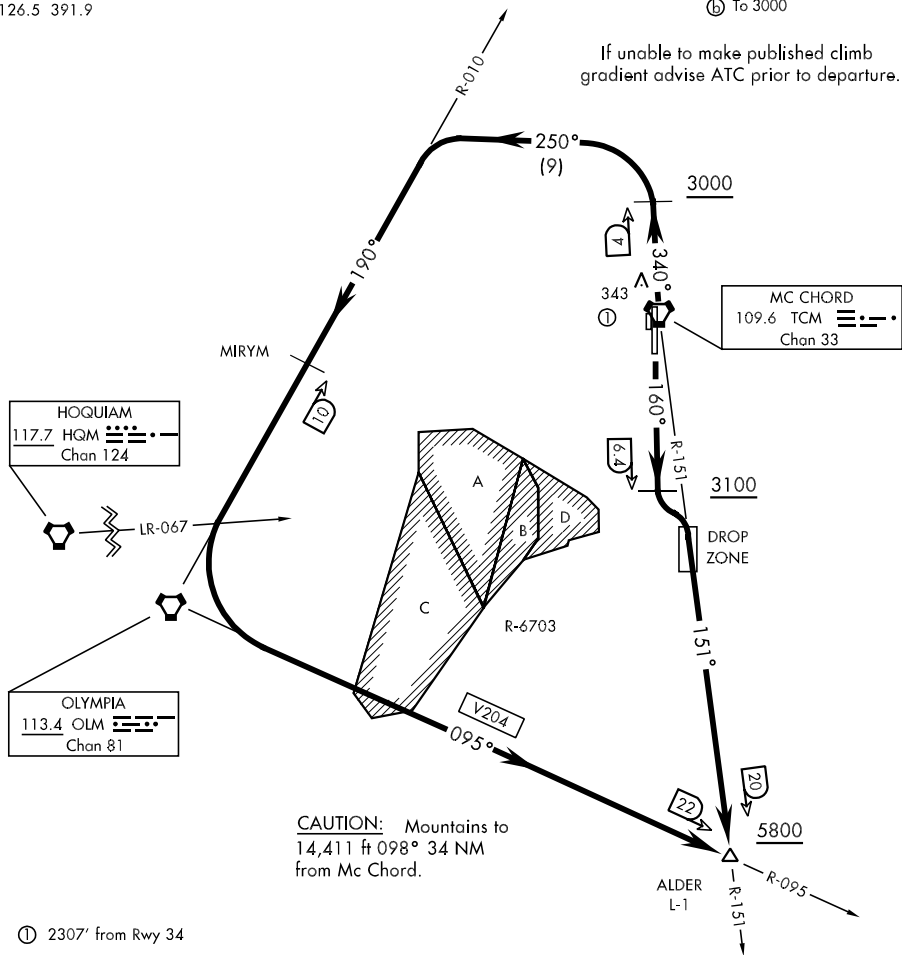
Rwy	Knots	60	120	180	240
16 (A) V/V(fpm)		560	1120	1680	2240
34 (B) V/V(fpm)		730	1450	2180	2890

ATC Climb Rate

(A) To 3100

(B) To 3000

If unable to make published climb gradient advise ATC prior to departure.



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 16: Track heading 160° to TCM VORTAC 6.4 DME, then turn left to intercept the TCM R-151 to ALDER. Cross TCM 6.4 DME at or above 3100, cross ALDER at or above 5800.

TAKE-OFF RWY 34: Climb on track 340° to TCM VORTAC 4 DME. Cross TCM 4 DME at or above 3000, then turn left heading 250° to intercept OLM VORTAC R-010/10 DME (MIRYM) to OLM VORTAC. Then via V204 (OLM R-095) to ALDER. Cross ALDER at or above 5800.

ALDER-NINE DEPARTURE (ALDER9 • ALDER)

TACOMA, WASHINGTON

ARRIE FIVE ARRIVAL

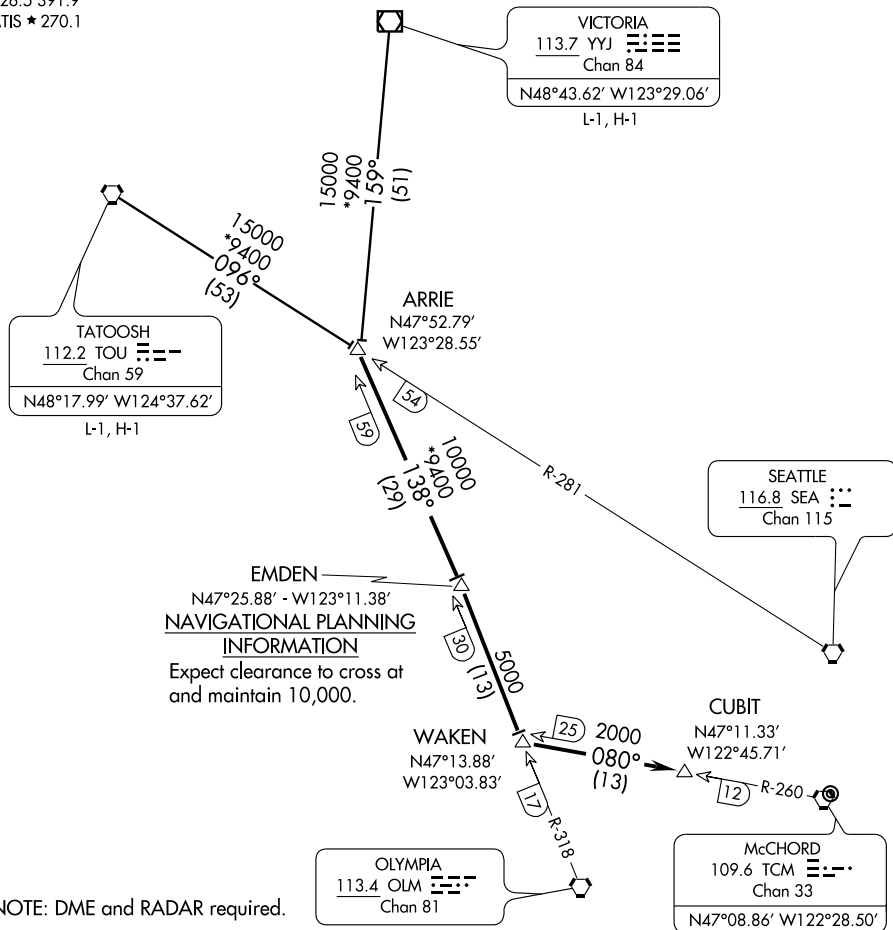
ST-414 (FAA)

McCHORD AFB
TACOMA, WASHINGTON

SEATTLE APP CON

126.5 391.9

ATIS ★ 270.1



TATOOSH TRANSITION (TOU.ARRIE5): From over TOU VORTAC via TOU R-096 to ARRIE DME Fix. Thence. . .

VICTORIA TRANSITION (YYJ.ARRIE5): From over YYJ VOR/DME via YYJ R-159 to ARRIE DME Fix. Thence. . .

. . . From over ARRIE DME Fix via OLM R-318 and TCM R-260 to CUBIT INT. Expect radar vectors to final approach course.

LOST COMMUNICATIONS: Proceed direct to TCM VORTAC.



LOC I-MAR 109.9	APCH CRS 160°	Rwy Idg 10,108 TDZE 286 Arpt Elev 322
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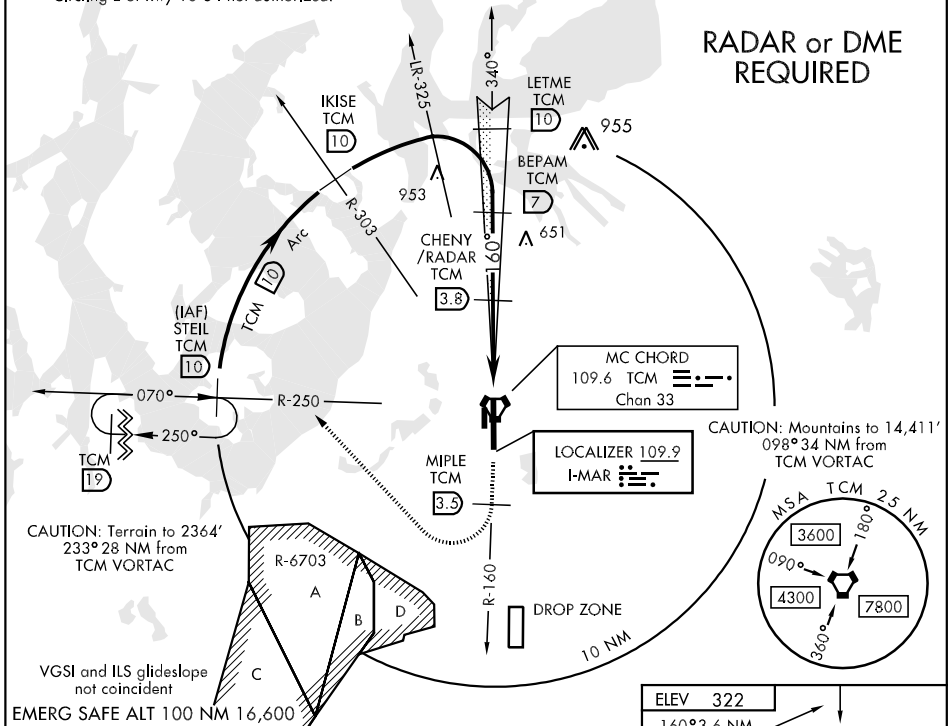
AL-414 [USAF]

MC CHORD AFB (KTCM)

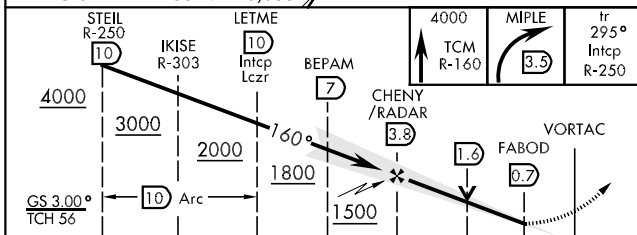
▼ ** When ALS inop, increase vis to $\frac{3}{4}$ mile, RVR to 40.
 ** When ALS inop, increase CAT AB RVR to 50, vis to 1 mile, CAT C vis to $1\frac{1}{2}$ miles, CAT DE vis to $1\frac{3}{4}$ miles.

ATIS 109.6 270.1	SEATTLE APP CON 126.5 391.9	MC CHORD TOWER 124.8 259.3	GND CON 118.175 279.65
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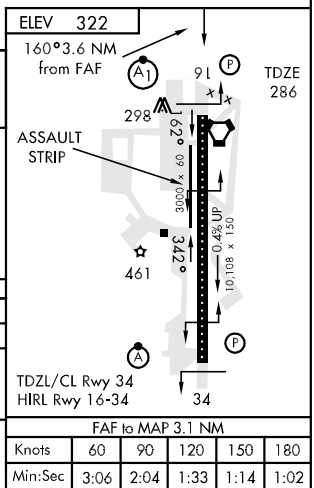
*** Circling E of Rwy 16-34 not authorized.



EMERG SAFE ALT 100 NM 16,600



CATEGORY	A	B	C	D	E
S-ILS 16*	486/18	200 (200- $\frac{1}{2}$)	486/24	200 (200- $\frac{1}{2}$)	
S-LOC 16**	800/40	514 (500- $\frac{3}{4}$)	800/50 514 (500-1)	800/60	514 (500- $\frac{1}{4}$)
CIRCLING***	940-1	618 (700-1)	940-1 $\frac{3}{4}$ 618 (700-1 $\frac{3}{4}$)	940-2 618 (700-2)	940-2 $\frac{1}{4}$ 618 (700-2 $\frac{1}{4}$)



LOC I-TCM 108.5	APCH CRS 340°	Rwy Idg 10,108 TDZE 322 Arpt Elev 322
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AL-414 [USAF]

MC CHORD AFB (KTCM)

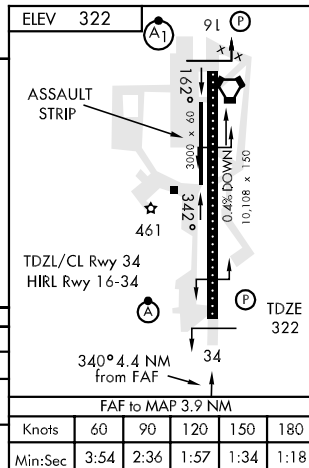
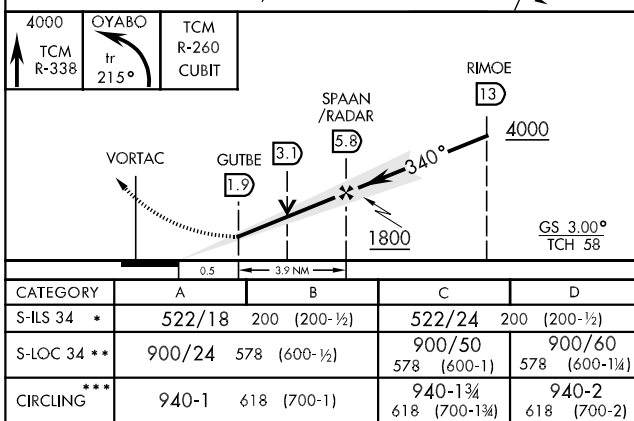
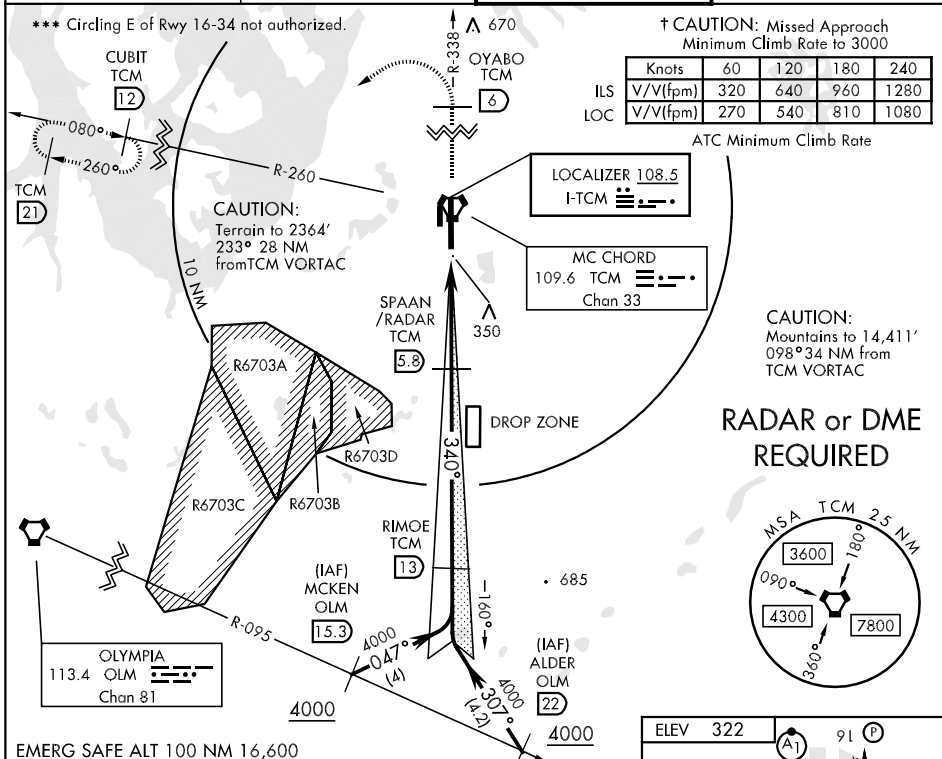
▼ * When ALS inop, increase vis $\frac{3}{4}$ mile, RVR to 40.
 ** When ALS inop, increase CAT AB vis to 1 mile,
 RVR to 50, CAT C vis to $1\frac{1}{2}$ miles, CAT D vis to
 $1\frac{3}{4}$ miles.

ALSF-2



† MISSED APPROACH: Climb to 4000 on TCM VORTAC R-338
 to OYABO, then turn left via 215° course to intercept TCM
 R-260 to CUBIT and hold, continue climb in hold to 4000.
 Cross OYABO at or above 3000.

ATIS 109.6 270.1	SEATTLE APP CON 126.5 391.9	MC CHORD TOWER 124.8 259.3	GND CON 118.175 279.65
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LOC I-TCM 108.5	APCH CRS 340°	Rwy Idg 10,108 TDZE 322 Arprt Elev 322
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AL-414 [USAF]

MC CHORD AFB (KTCM)

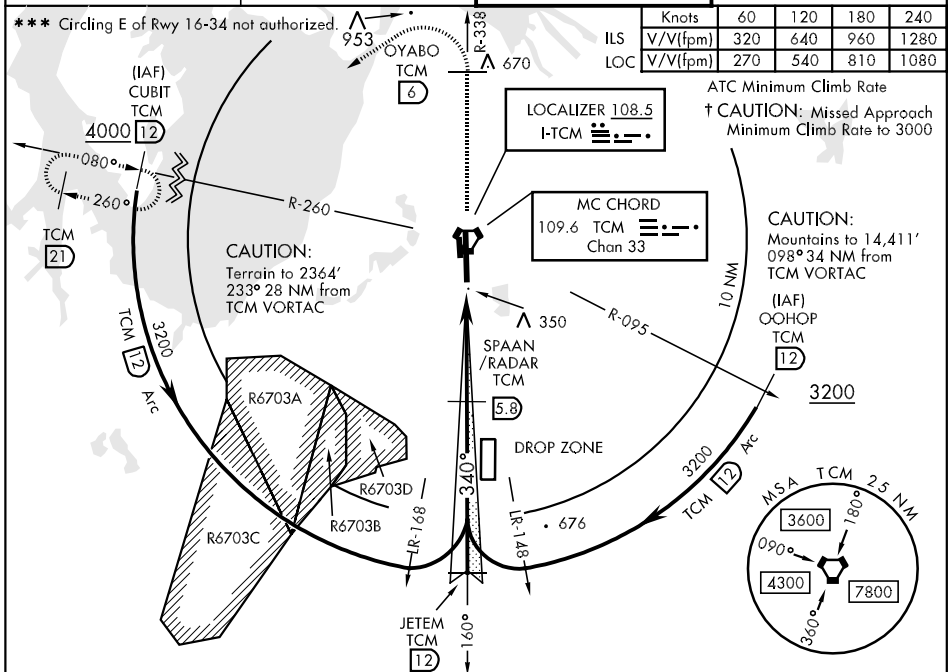
▼ * When ALS inop, increase vis $\frac{3}{4}$ mile, RVR to 40.
 ** When ALS inop, increase CAT AB vis to 1 mile, RVR to 50, CAT C vis to $1\frac{1}{2}$ miles, CAT D vis to $1\frac{3}{4}$ miles.



† MISSED APPROACH: Climb to 4000 on TCM VORTAC R-338 to OYABO, then turn left via 215° course to intercept TCM R-260 to CUBIT and hold, continue climb in hold to 4000. Cross OYABO at or above 3000.

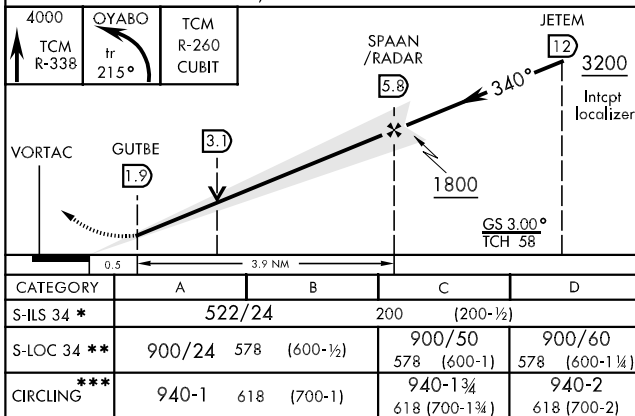
ATIS 109.6 270.1	SEATTLE APP CON 126.5 391.9	MC CHORD TOWER 124.8 259.3	GND CON 118.175 279.65
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*** Circling E of Rwy 16-34 not authorized.

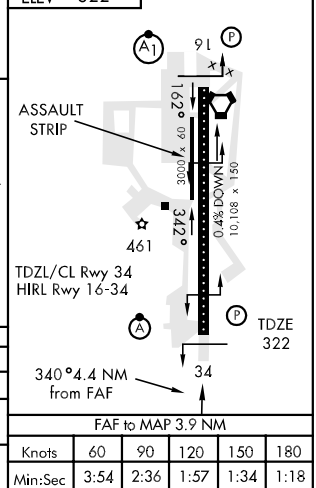


RADAR or DME REQUIRED

EMERG SAFE ALT 100 NM 16,600



ELEV 322



LOC I-TCM 108.5	APCH CRS 340°	Rwy Idg TDZE Arprt Elev	10,108 322 322
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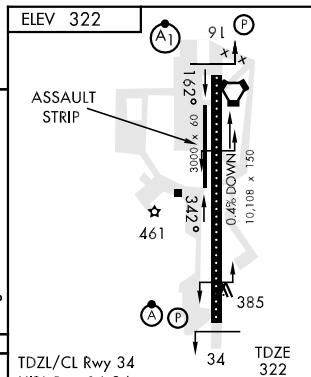
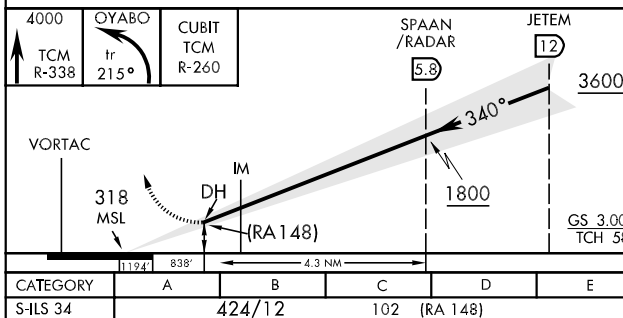
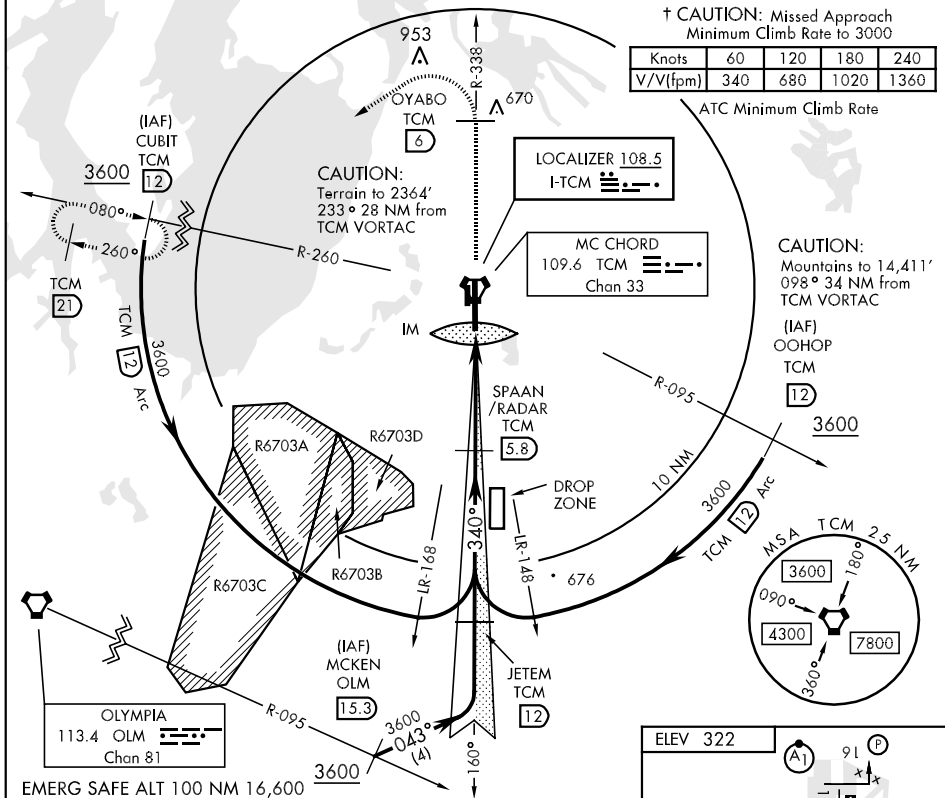
AL-414 [USAF]

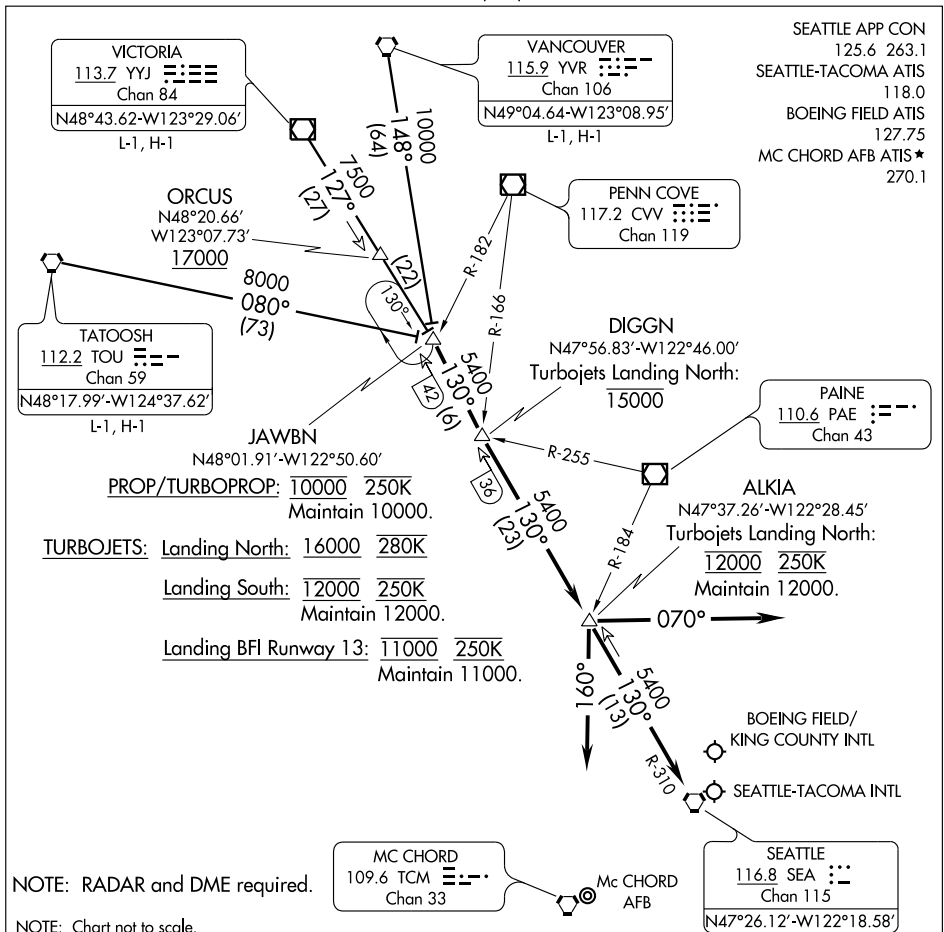
MC CHORD AFB (KTCM)

		† MISSED APPROACH: Climb to 4000 on TCM VORTAC R-338 to OYABO, then turn left via 215° course to intercept TCM R-260 to CUBIT and hold, continue climb in hold to 4000. Cross OYABO at or above 3000.
--	--	---

ATIS 109.6 270.1	SEATTLE APP CON 126.5 391.9	MC CHORD TOWER 124.8 259.3	GND CON 118.175 279.65
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CATEGORY II ILS-SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED





TATOOSH TRANSITION (TOU.JAWBN1): From over TOU VORTAC via TOU R-080 to JAWBN INT. Thence....

VANCOUVER TRANSITION (YVR.JAWBN1): From over YVR VORTAC via YVR R-148 to JAWBN INT. Thence....

VICTORIA TRANSITION (YYJ.JAWBN1): From over YYJ VOR/DME via YYJ R-127 to JAWBN INT. Thence....

....From over JAWBN INT/SEA 42 DME via SEA R-310 to DIGGN/SEA 36 DME then via SEA R-310 to ALKIA INT/SEA 13 DME, thence....

LANDING NORTH: Depart ALKIA INT heading 160° for vectors to final approach course.

LANDING SOUTH: Depart ALKIA INT heading 070° for vectors to final approach course.

LANDING McCHORD AFB: After ALKIA INT proceed direct SEA VORTAC.

LOST COMMUNICATIONS: After ALKIA INT proceed direct SEA VORTAC.

OLYMPIC-THREE DEPARTURE

SL-414 [USAF]

TACOMA, WASHINGTON

ATIS
109.6 270.1
GND CON
118.175 279.65
MC CHORD TOWER
124.8 259.3
SEATTLE DEP CON
126.5 391.9

If unable to make published
climb gradient advise ATC
prior to departure.

Rwy	Knots	60	120	180	240
16 (A) V/V(fpm)		320	640	960	1280
34 (B) V/V(fpm)		650	1300	1950	2600

ATC Climb Rate

(A) To 10 DME

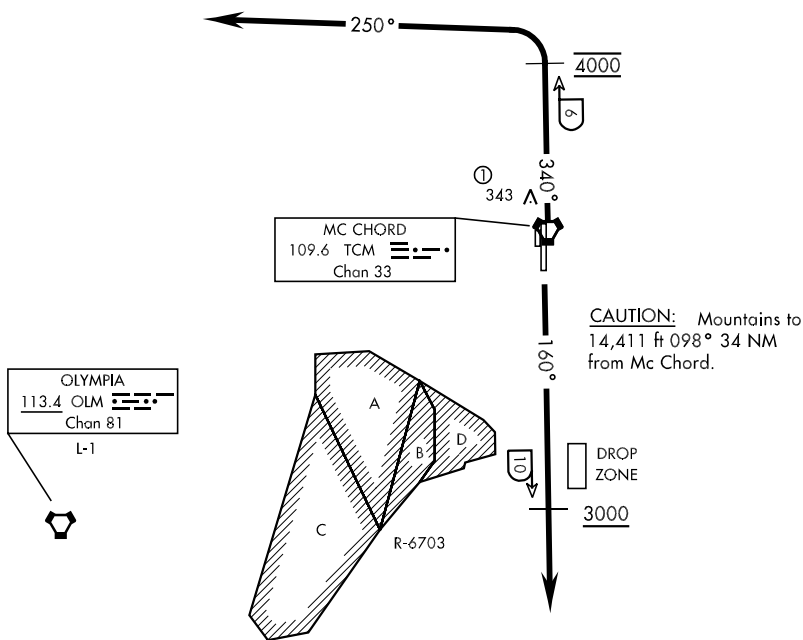
(B) To 6 DME

RADAR REQUIRED

Maximum 250 KIAS

SEATTLE
116.8 SEA
Chan 115

L-1



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 16: Climb on a track of 160°. Cross TCM VORTAC 10 DME at or above 3000. Maintain (assigned altitude). Expect radar vectors within TCM 8 DME after departure.

TAKE-OFF RWY 34: Climb on a track of 340° to TCM VORTAC 6 DME. Cross TCM 6 DME at 4000. Then turn left tracking 250°. Maintain (assigned altitude). Expect radar vectors.

ATIS
109.6 270.1
GND CON
118.175 279.65
MC CHORD TOWER
124.8 259.3
SEATTLE DEP CON
126.5 391.9

If unable to make published climb gradient advise ATC prior to departure.

Rwy	Knots	60	120	180	240
16 @	V/V(fpm)	320	640	960	1280

ATC Climb Rate

Ⓐ To 10 DME

RADAR REQUIRED

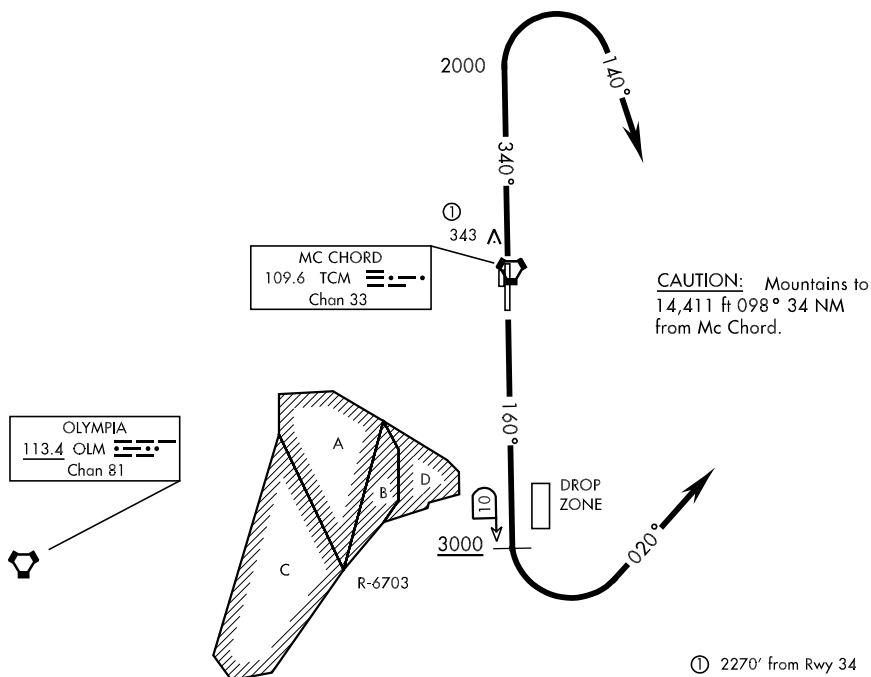
Maximum 250 KIAS

Radar vectors required within 10 NM after departure

SEATTLE

116.8 SEA :
Chan 115

1-1



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 16: Climb on a track of 160° to TCM VORTAC 10 DME, then turn left tracking 020°. Cross TCM 10 DME at or above 3000. Maintain (assigned altitude). Expect radar vectors.

TAKE-OFF RWY 34: Climb on a track of 340° to 2000. Then turn right, tracking 140°. Maintain (assigned altitude). Expect radar vectors.

TACAN TCM Chan 33	APCH CRS 153°	Rwy ldg 10,108 TDZE 286 Arpt Elev 322
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AL-414 [USAF]

MC CHORD AFB (KTCM)

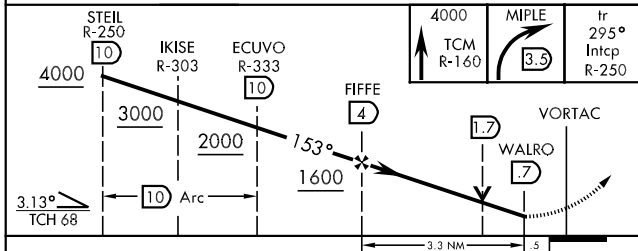
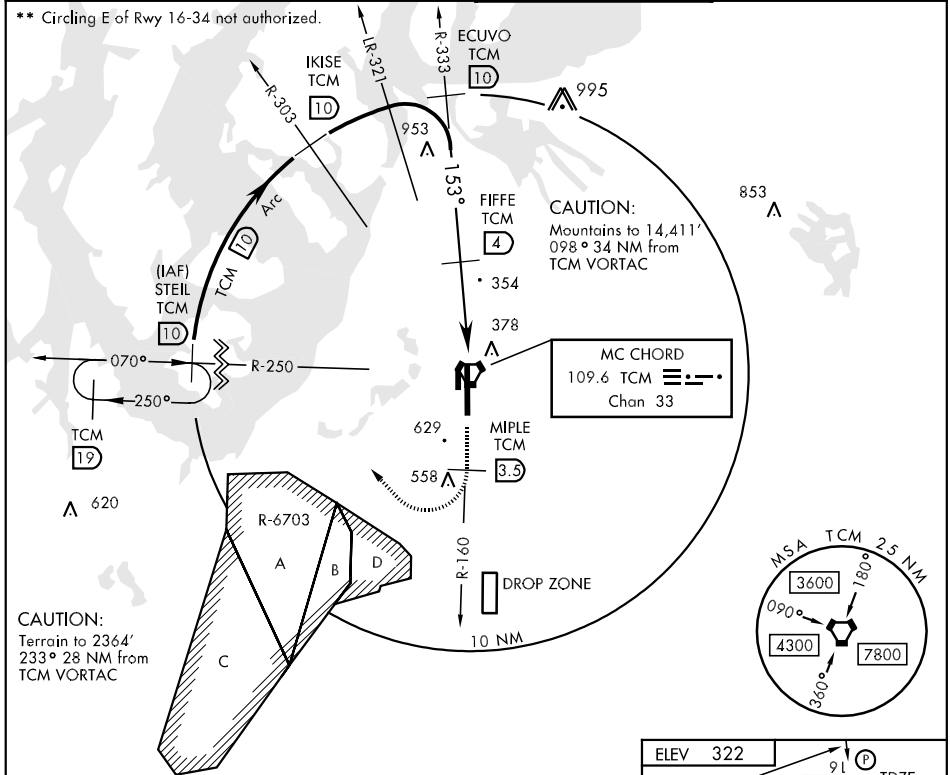
▼ * When ALS inop, increase CAT AB vis to 1 mile, RVR to 50, CAT C vis to 1½ miles, CAT DE vis to 1¾ miles.



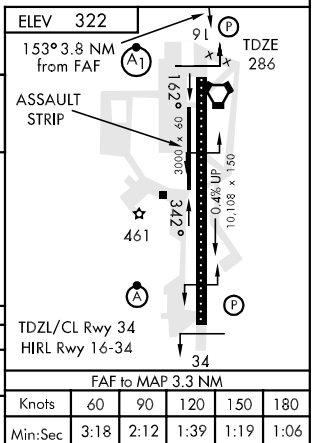
MISSED APPROACH: Climb to 4000 on TCM VORTAC R-160. At TCM 3.5 DME turn right via 295° course to intercept TCM R-250 to STEIL and hold, continue climb in hold to 4000.

ATIS 109.6 270.1	SEATTLE APP CON 126.5 391.9	MC CHORD TOWER 124.8 259.3	GND CON 118.175 279.65
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** Circling E of Rwy 16-34 not authorized.



CATEGORY	A	B	C	D	E
S-16 *	800/40 514 (500-¾)		800/50 514 (500-1)	800/60 514 (500-1½)	
CIRCLING **	940-1 618 (700-1)		940-1¾ 618(700-1¾)	940-2 618 (700-2)	940-2 ½ 618(700-2 ½)



TACAN TCM Chan 33	APCH CRS 338°	Rwy Idg 10,108 TDZE 322 Arpt Elev 322
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AL-414 [USAF]

MC CHORD AFB (KTCM)

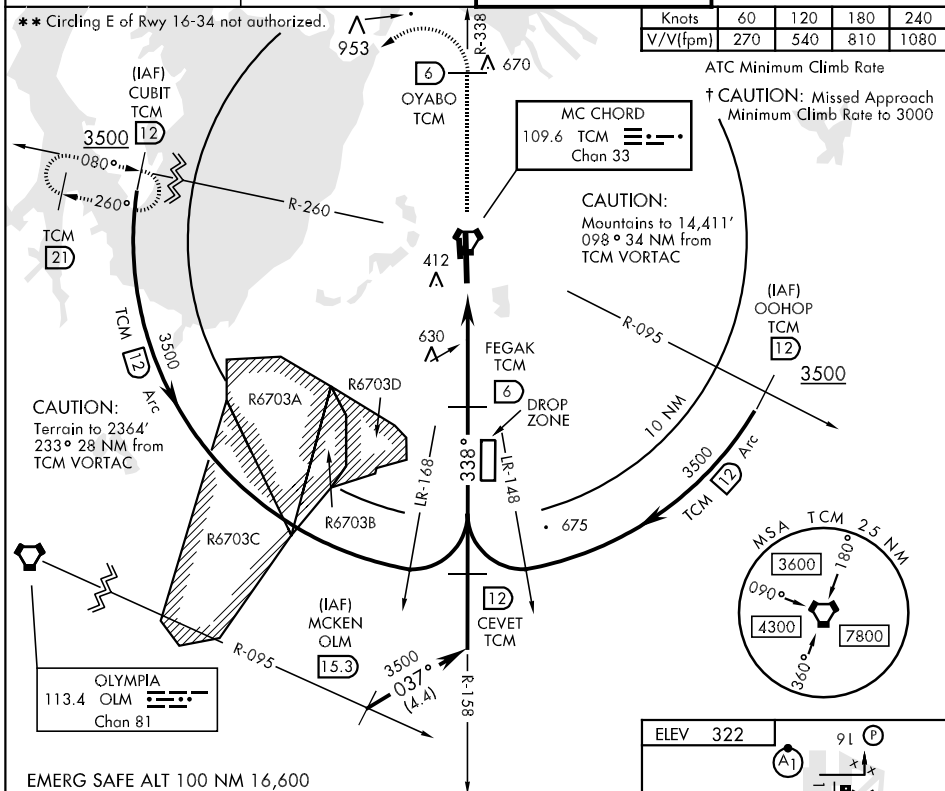
T * When ALS inop, increase CAT AB vis to 1 mile, RVR to 50, CAT C vis to 1½ miles, CAT D vis to 1¾ miles.



† MISSED APPROACH: Climb to 4000 on TCM VORTAC R-338 to 6 DME. Cross TCM 6 DME at or above 3000, then turn left via 215° course to intercept TCM R-260 to CUBIT and hold. Continue climb in hold to 4000.

<p>ATIS</p> <p>109.6 270.1</p>	<p>SEATTLE APP CON</p> <p>126.5 391.9</p>	<p>MC CHORD TOWER</p> <p>124.8 259.3</p>	<p>GND CON</p> <p>118.175 279.65</p>
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**** Circling E of Rwy 16-34 not authorized.**

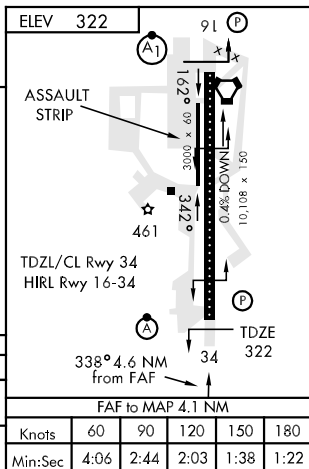


EMERG SAFE ALT 100 NM 16,600

Figure 1 illustrates a flight profile with the following details:

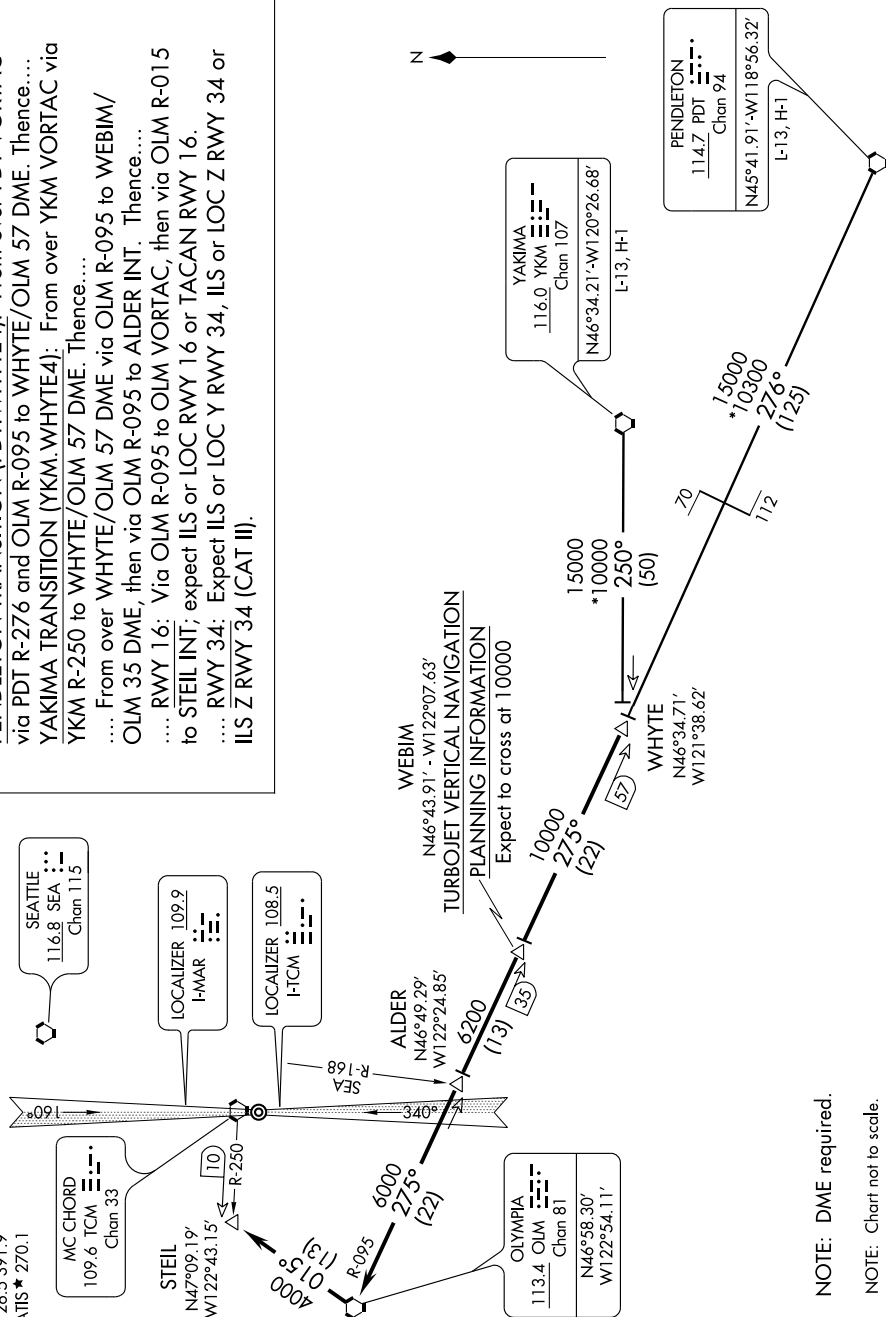
- Navigation Aids:** TCM R-338, OYABO (215° TCM R-260), VORTAC, EDEBE, FEGAK, and CEVET.
- Altitudes:** 4000, 3500, and 1900.
- Angles:** 338° and 3.13° TCH 60.
- Distances:** 4.1 NM between EDEBE and FEGAK.
- Table Data:**

CATEGORY	A	B	C	D
S-34 *	900/24 578 (600-½)		900/50 578 (600-1)	900/60 578 (600-¼)
CIRCLING **	940-1 618 (700-1)		940-1¾ 618 (700-¾)	940-2 618 (700-2)



PENDLETON TRANSITION (PDT.WHYTE4): From over PDT VORTAC via PDT R-276 and OLM R-095 to WHYTE/OLM 57 DME. Thence.... YAKIMA TRANSITION (YKM.WHYTE4): From over YKM VORTAC via YKM R-250 to WHYTE/OLM 57 DME. Thence....

..... From over WHYTE/OLM 57 DME via OLM R-095 to WEBIM/
OLM 35 DME, then via OLM R-095 to ALDER INT. Thence.....
..... RWY 16: Via OLM R-095 to OLM VORTAC, then via OLM R-015
to STEIL INT; expect ILS or LOC RWY 16 or TACAN RWY 16.
..... RWY 34: Expect ILS or LOC Y RWY 34, ILS or LOC Z RWY 34 or
ILS Z RWY 34 (CAT III).



NOTE: DME required.

NOTE: Chart not to scale.

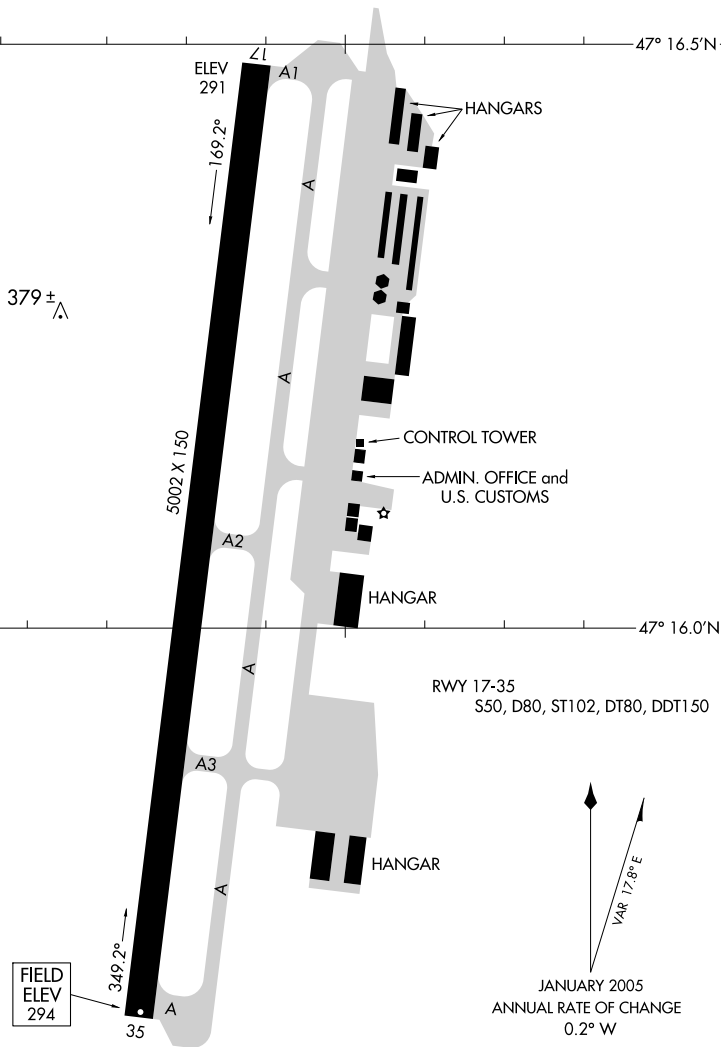
NW-1. 17 DEC 2009 to 14 JAN 2010

AIRPORT DIAGRAM

AL-5186 (FAA)

TACOMA NARROWS (TIW)
TACOMA, WASHINGTON

ATIS 124.05
TACOMA TOWER★
118.5 253.5
GND CON
121.8



122° 35'W

122° 34'W

NW-1, 17 DEC 2009 to 14 JAN 2010

LOC I-TIW	APP CRS	Rwy Idg	5002
109.1	167°	TDZE	292
		Apt Elev	292

⚠ When control tower closed, obtain local altimeter setting on UNICOM, when not received, use McChord AFB altimeter setting minimums.

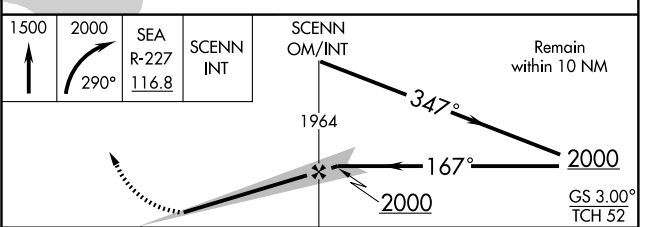
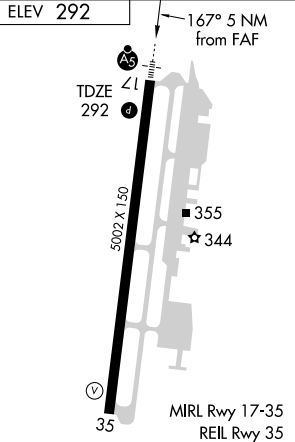
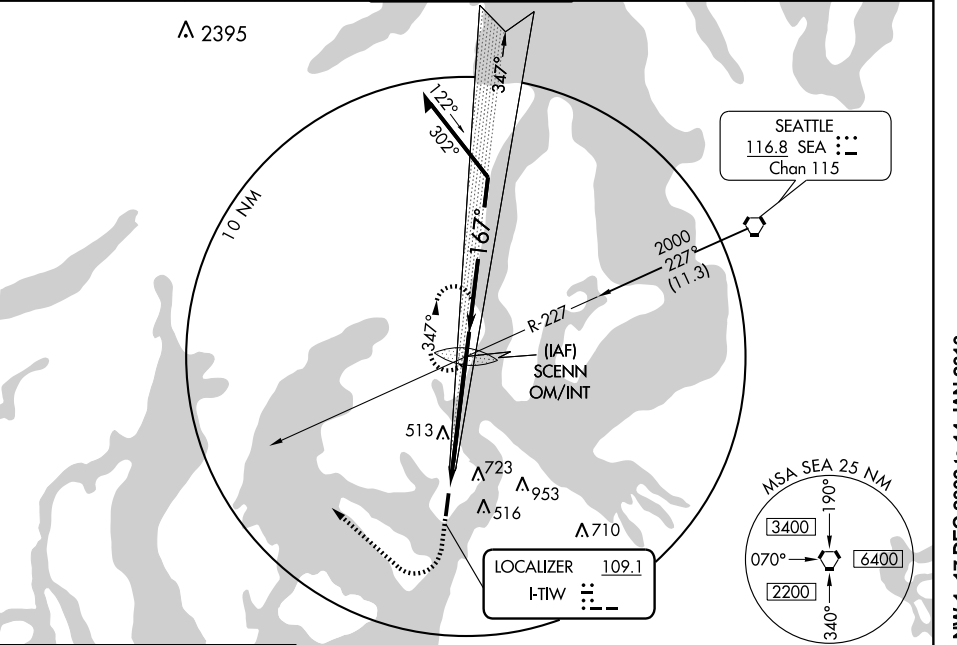
⚠ Circling not authorized East of Rwy 17-35.

MALSR

AS

MISSED APPROACH: Climb to 1500, then climbing right turn to 2000 via heading 290° and SEA VORTAC R-227 to SCENN INT and hold.

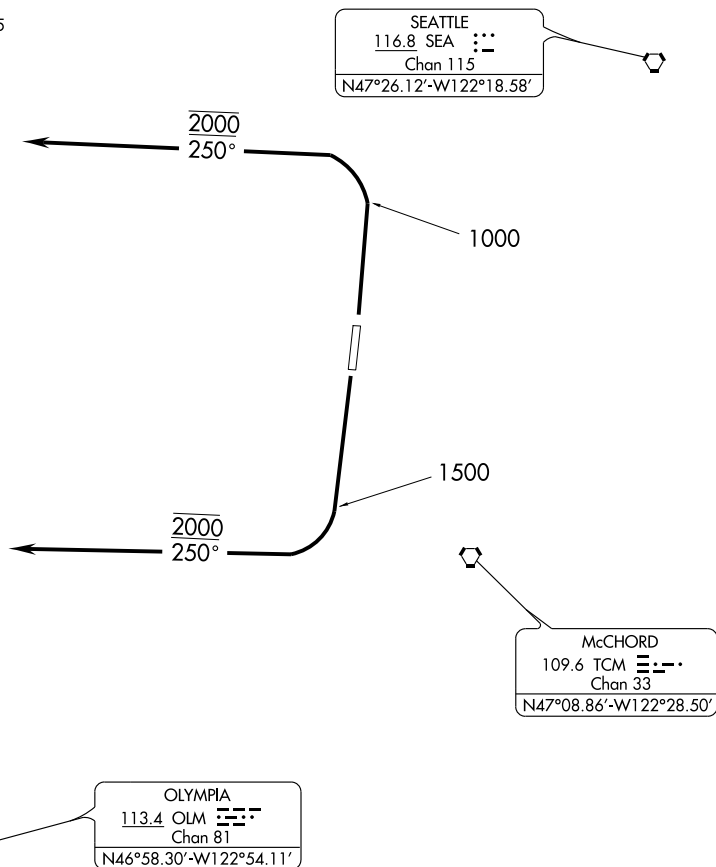
ATIS 124.05	SEATTLE APP CON 120.1 290.9	TACOMA TOWER ★ 118.5 (CTAF) 253.5	GND CON 121.8	UNICOM 122.95
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CATEGORY	A	B	C	D
S-ILS 17	492-½ 200 (200-½)			
S-LOC 17	760-½ 468 (500-½)	760-¾ 468 (500-¾)	760-1 468 (500-1)	760-1 468 (500-1)
CIRCLING	760-1 468 (500-1)	760-1½ 468 (500-1½)	860-2 568 (600-2)	860-2 568 (600-2)
McCHORD AFB ALTIMETER SETTING MINIMUMS				
S-ILS 17	517-½ 225 (300-½)			
S-LOC 17	780-½ 488 (500-½)	780-¾ 488 (500-¾)	780-1 488 (500-1)	780-1 488 (500-1)
CIRCLING	780-1 488 (500-1)	780-1½ 488 (500-1½)	860-2 568 (600-2)	860-2 568 (600-2)

FAF to MAP 5 NM					
Knots	60	90	120	150	180
Min:Sec	5:00	3:20	2:30	2:00	1:40

ATIS 124.05
GND CON 121.8
TACOMA TOWER
118.5 (CTAF) 253.5
SEATTLE DEP CON
120.1 290.9



NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 17: Climb runway heading until leaving 1500, turn right heading 250°, maintain 2000. Expect filed altitude 5 minutes after departure. Expect radar vectors to assigned route

TAKE-OFF RUNWAY 35: Climb runway heading until leaving 1000, turn left heading 250°, maintain 2000. Expect filed altitude 5 minutes after departure. Expect radar vectors to assigned route.

LOST COMMUNICATIONS: If no transmissions are received for 3 minutes after departure, climb to filed altitude direct SEA VORTAC, thence via assigned route.

LOM GR 216	APP CRS 349°	Rwy Idg TDZE Apt Elev 5002 292 292
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NDB RWY 35

TACOMA NARROWS (TIW)

▼ When control tower closed, obtain local altimeter setting on UNICOM; when not received, use McChord AFB altimeter setting. Circling not authorized East of Rwy 17-35.

MISSED APPROACH: Climb to 1000, then climbing left turn to 2000 direct GR LOM and hold.

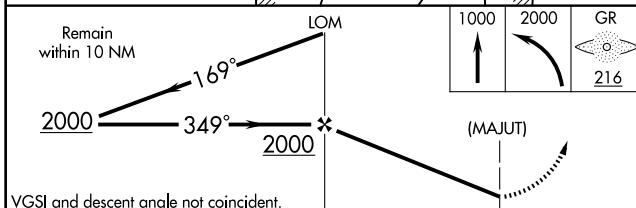
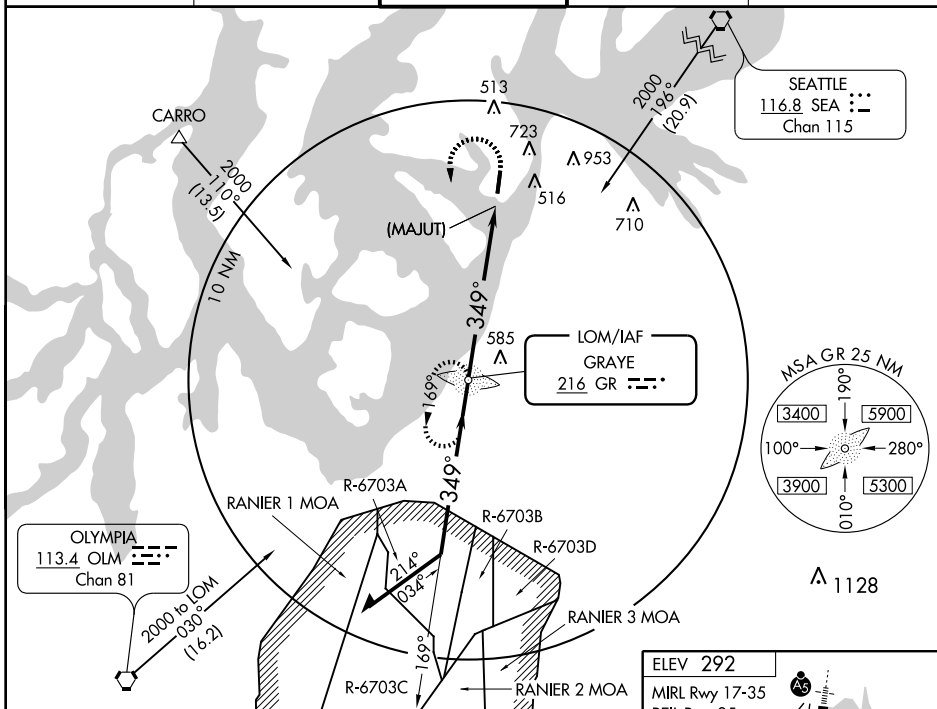
ATIS
124.05

SEATTLE APP CON
120.1 290.9

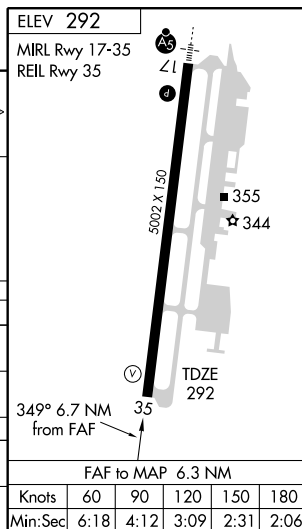
TACOMA TOWER★
118.5 (CTAF) 0 253.5

GND CON
121.8

UNICOM
122.95



CATEGORY	A	B	C	D
S-35	1000-1	708 (800-1)	1000-2 708 (800-2)	1000-2¼ 708 (800-2¼)
CIRCLING	1000-1	708 (800-1)	1000-2 708 (800-2)	1000-2¼ 708 (800-2¼)
McCHORD AFB ALTIMETER SETTING MINIMUMS				
S-35	1020-1	728 (800-1)	1020-2 728 (800-2)	1020-2¼ 728 (800-2¼)
CIRCLING	1020-1	728 (800-1)	1020-2 728 (800-2)	1020-2¼ 728 (800-2¼)



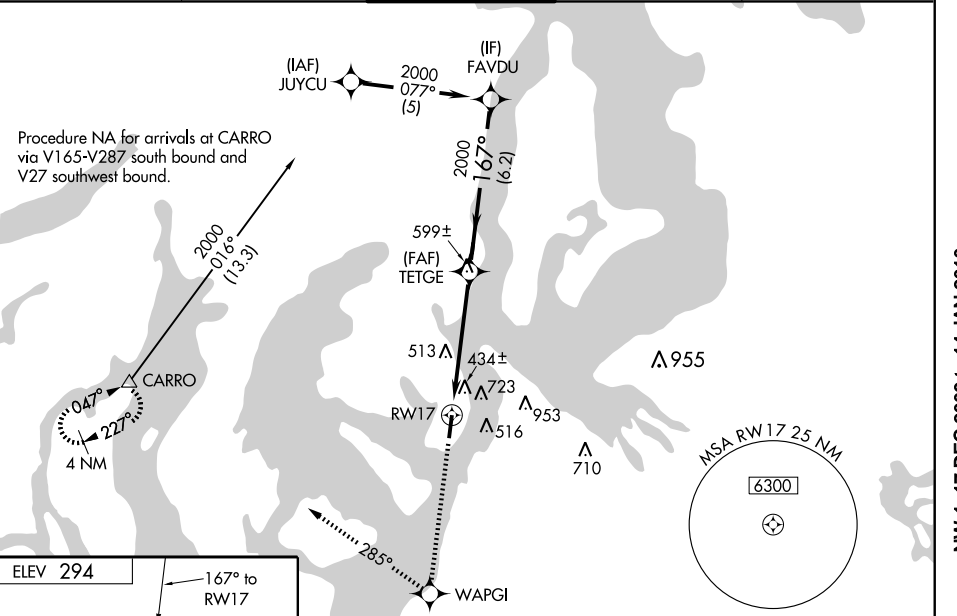
⚠ Inoperative table does not apply to LNAV Cats A and B.
Circling NA east of Rwy 17/35.

⚠ Baro-VNAV NA when using McChord AFB altimeter setting.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F).
DME/DME RNP -0.3 NA. Visibility reduction by helicopters NA.
When local altimeter setting not received, use McChord AFB altimeter setting and increase all DA/MDA 40 feet.

MALSR

MISSED APPROACH: Climb to 4000 direct WAPGI and right turn via 285° track to CARRO and hold, continue climb-in-hold to 4000.

ATIS 124.05	SEATTLE APP CON 120.1 290.9	TACOMA TOWER ★ 118.5 (CTAF) 0 253.5	GND CON 121.8	UNICOM 122.95
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ELEV 294

167° to RWY 17

TDZE 294

5002 x 150

355

344

35

4000	WAPGI	285° track	CARRO	TETGE	FAVDU	Procedure Turn NA
↑	✧	↘	△	✧	✧	
RWY 17		5.1 NM		6.2 NM		
167°		2000		2000		
GS 3.00°		TCH 52				
CATEGORY	A	B	C	D		
LPV DA	638-1 344 (400-1)					
LNAV/VNAV DA	992-2 698 (700-2)					
LNAV MDA	980-1	686 (700-1)	980-1½ 686 (700-1½)	980-1¾ 686 (700-1¾)		
CIRCLING	980-1	686 (700-1)	980-2 686 (700-2)	980-2¼ 686 (700-2¼)		

MIRL Rwy 17-35
REIL Rwy 35

NW-1. 17 DEC 2009 to 14 JAN 2010

▼

Baro-VNAV NA when using McChord AFB altimeter setting.

▲

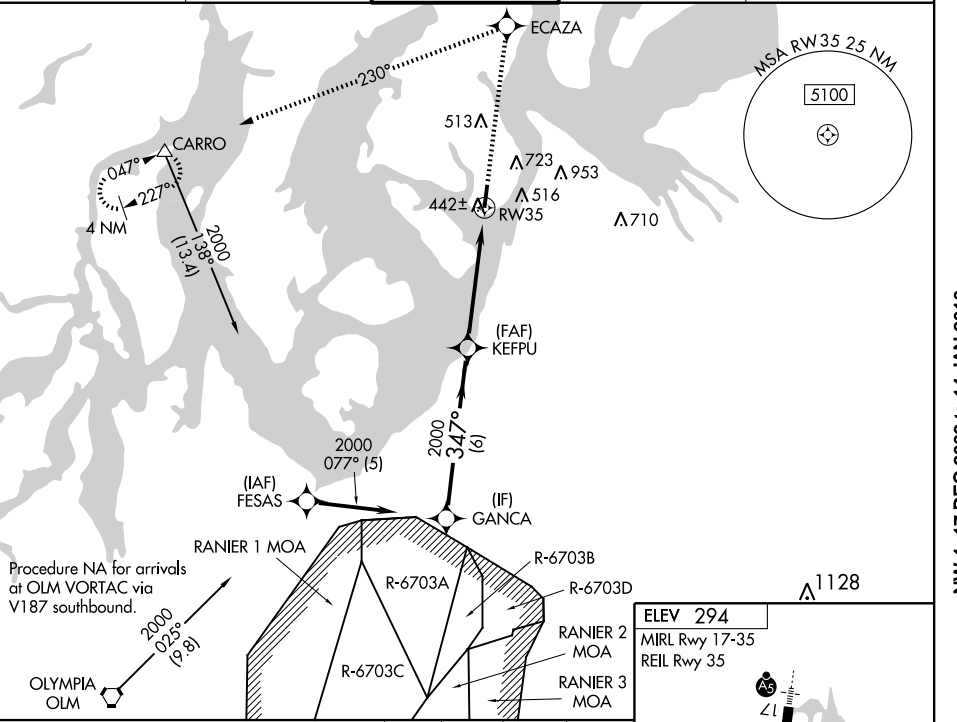
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP- 0.3 NA.

Visibility reduction by helicopters NA. Circling NA east of Rwy 17-35.

When local altimeter setting not received, use McChord AFB altimeter setting and increase all DA 25 feet and all MDA 40 feet.

MISSED APPROACH: Climb to 4000 direct ECAZA and left turn via 230° track to CARRO and hold, continue climb-in-hold to 4000.

ATIS 124.05	SEATTLE APP CON 120.1 290.9	TACOMA TOWER ★ 118.5 (CTAF) 253.5	GND CON 121.8	UNICOM 122.95
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Procedure Turn NA	GANCA	KEFPU	4000	ECAZA	230°	CARRO
GS 3.00° TCH 51	2000	347°	2000			RW35
	6 NM	5.1 NM				
CATEGORY	A	B	C	D		
LPV DA		560-1	266 (300-1)			
LNAV/VNAV DA		768-1¾	474 (500-1¾)			
LNAV MDA	840-1	546 (600-1)	840-1½ 546 (600-1½)	840-1¾ 546 (600-1¾)		
CIRCLING	980-1	686 (700-1)	980-2 686 (700-2)	980-2¼ 686 (700-2¼)		

ELEV 294

MIRL Rwy 17-35

REIL Rwy 35

5002 x 150

355

344

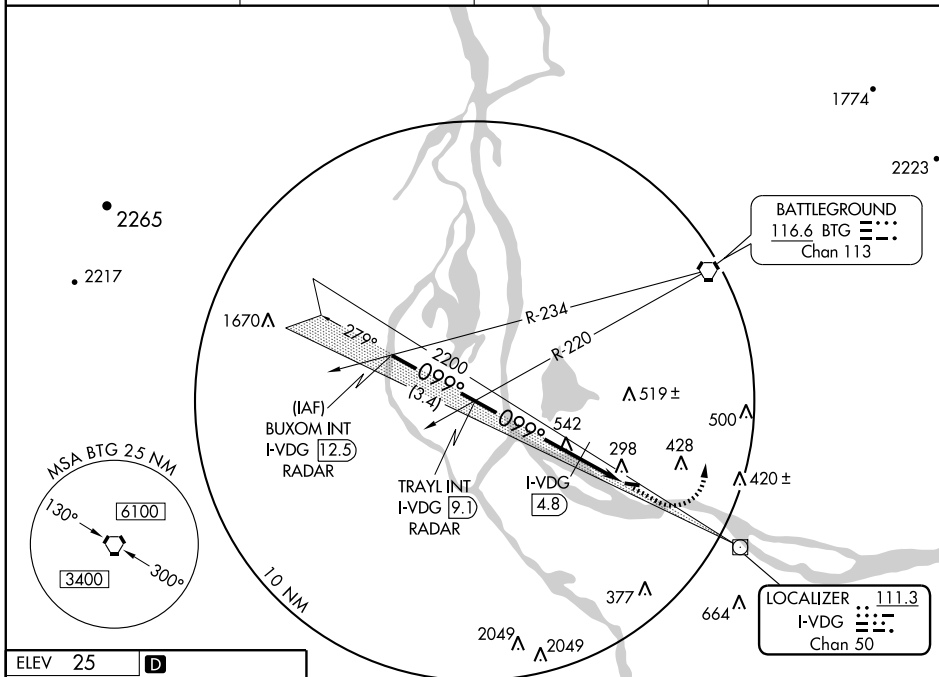
TDZE 294

35

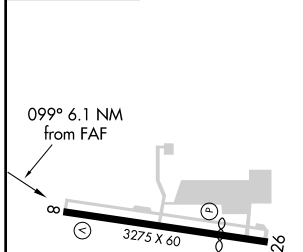
347° to RW35

LOC/DME I-VDG 111.3 Chan 50	APP CRS 099°	Rwy Idg TDZE Apt Elev	N/A N/A 25
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Use Portland Intl altimeter setting.		MISSED APPROACH: Climb to 900 then climbing left turn to 4000 direct to BTG VORTAC.	
ASOS 135.125	PORTLAND APP CON 124.35 299.2	CLNC DEL 121.65	UNICOM 123.0 (CTAF) 1



ELEV 25	D
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RADAR REQUIRED

	BUXOM INT I-VDG 12.5 RADAR	TRAYL INT I-VDG 9.1 RADAR	I-VDG 4.8	I-VDG 3	I-VDG 116.6
	3000	2200	860		
Procedure Turn NA	3.4 NM	4.3 NM	1.8 NM		
CATEGORY	A	B	C	D	
CIRCLING	860-1 835 (900-1)	860-1 1/4 835 (900-1 1/4)	NA		
	DME MINIMUMS				
CIRCLING	660-1 635 (700-1)	720-1 695 (700-1)	NA		

REIL Rwy 8 and 26
MIRL Rwy 8-26 **1**

FAF to MAP 6.1 NM

Knots	60	90	120	150	180
Min:Sec	6:06	4:04	3:03	2:26	2:02

AIRPORT DIAGRAM

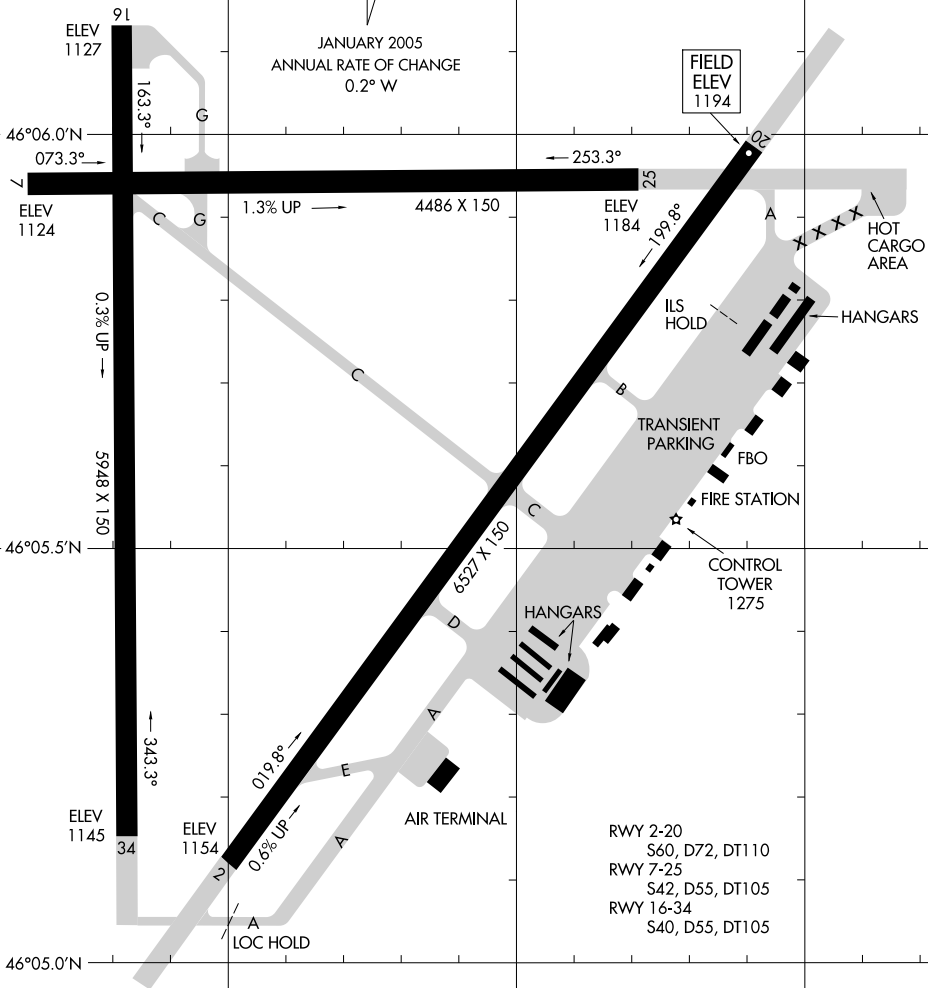
AL-440 (FAA)

WALLA WALLA RGNL (ALW)
WALLA WALLA, WASHINGTON

ASOS
135.875
WALLA WALLA TOWER ★
118.5 289.4
GND CON
121.6 289.4



JANUARY 2005
ANNUAL RATE OF CHANGE
0.2° W



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBCK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

118°17.5'W



118°17.0'W

118°16.5'W

NW-1, 17 DEC 2009 to 14 JAN 2010

LOC I-ALW <u>111.7</u>	APP CRS 196°	Rwy Idg TDZE Apt Elev	6527 1194 1194
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ILS or LOC RWY 20
WALLA WALLA RGNL (ALW)

	<p># RVR 1800 authorized with the use of FD or AP or HUD to DA.</p>	<p>MALSR</p> 	<p>MISSED APPROACH: Climb to 1600 then climbing right turn to 4000 heading 340° and ALW R-308 to BACUN INT/ALW 15.1 DME and hold.</p>
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ASOS 135.875	CHINOOK APP CON ★ 133.15 379.15	WALLA WALLA TOWER ★ 118.5 (CTAF) 0 289.4	GND CON 121.6 289.4
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Procedure NA for arrivals at RENG0 via V536 northeast bound and V187 eastbound.

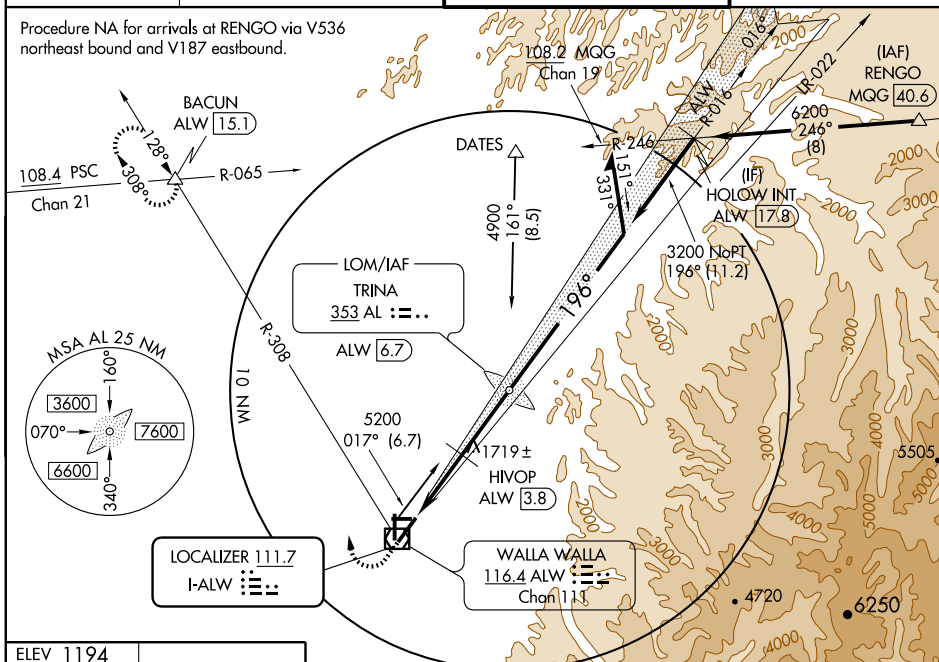
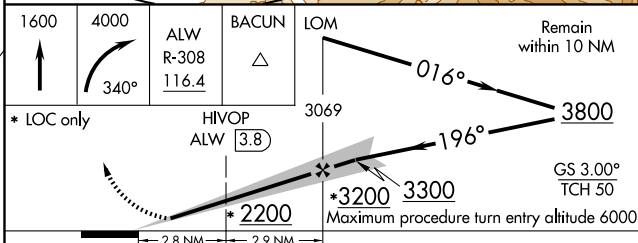


Diagram illustrating the FAF to MAP 5.7 NM segment. The diagram shows a vertical line representing the 9L runway and a horizontal line representing the 34 runway. A diagonal line represents the FAF path, with a 1.3% UP slope for the first 2.5 NM and a 0.6% UP slope for the next 3.2 NM. Key points include TDZE 1194, TWR 1275, and various altitudes (91, 4486, 5948, 6527). A table at the bottom provides speed and time data for this segment.

FAF to MAP 5.7 NM					
Knots	60	90	120	150	180
Min:Sec	5:42	3:48	2:51	2:17	1:54



CATEGORY	A	B	C	D
S-ILS 20	#1394/24		200 (200-½)	
S-LOC 20	2200/40 1006 (1100-¾)	2200/50 1006 (1100-1)	2200-2½ 1006 (1100-2½)	
CIRCLING	2200-1¼ 1006 (1100-1¼)	2200-1½ 1006 (1100-1½)	2200-3 1006 (1100-3)	
DME MINIMUMS				
S-LOC 20	1980/24 786 (800-½)	1980/40 786 (800-¾)	1980-1¾ 786 (800-1¾)	1980-2 786 (800-2)
CIRCLING	1980-1 786 (800-1)	1980-1¼ 786 (800-1¼)	1980-2¼ 786 (800-2¼)	1980-2½ 786 (800-2½)

NDB RWY 20

WALLA WALLA RGNL (ALW)

LOM AL	APP CRS	Rwy Idg	6527
353	196°	TDZE	1194
		Apt Elev	1194

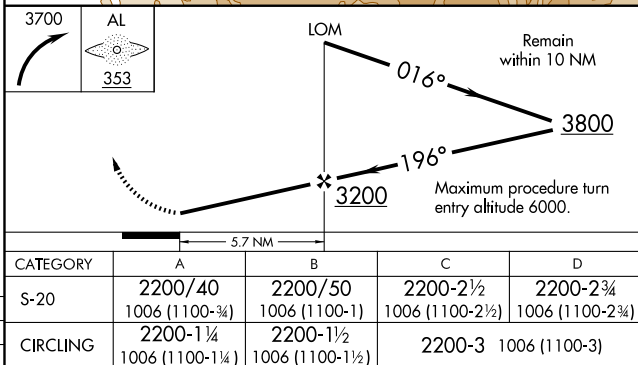
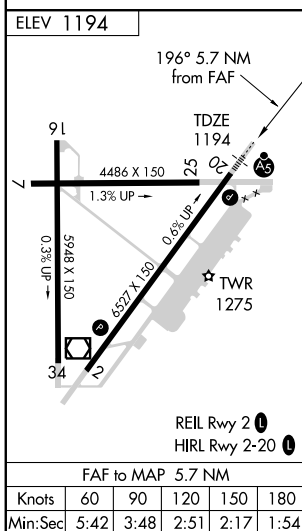
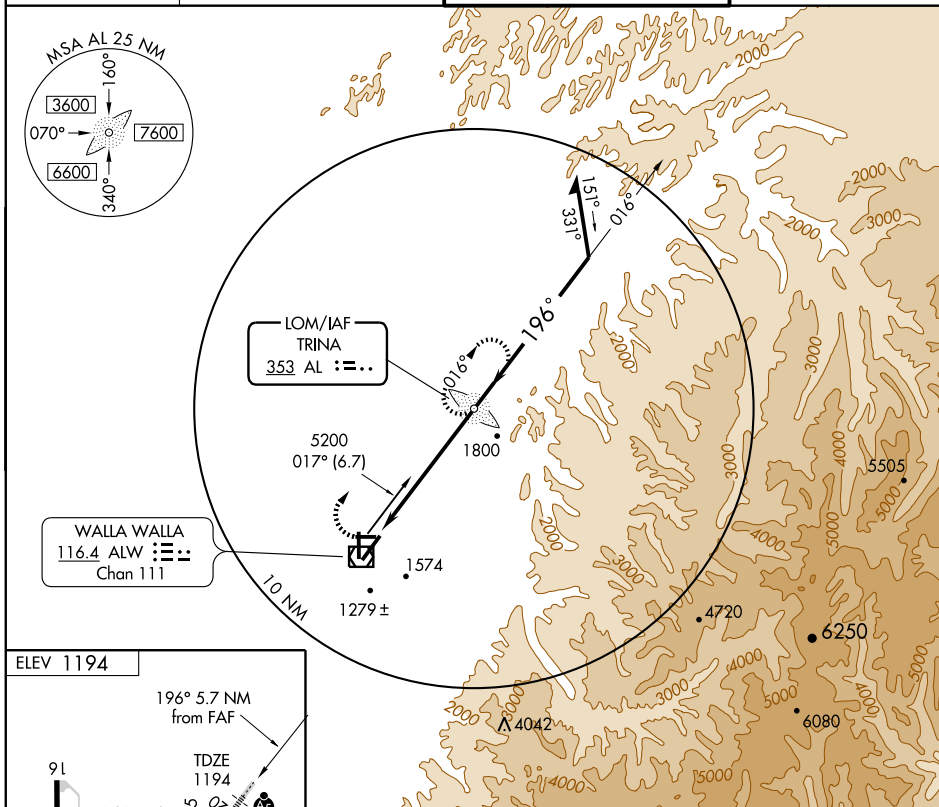
▼ Cat. A and B S-20 visibility increased
▲ ½ mile for inoperative ALSF-1.

MALSR



MISSED APPROACH: Climbing right turn
 to 3700 direct TRINA LOM and hold.

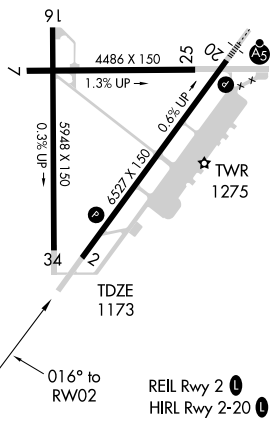
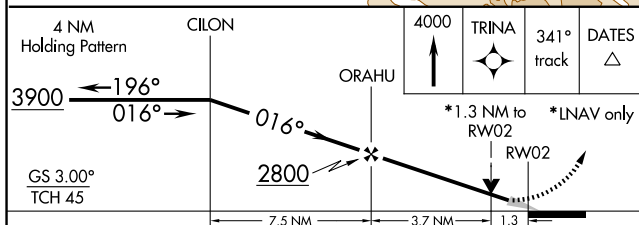
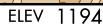
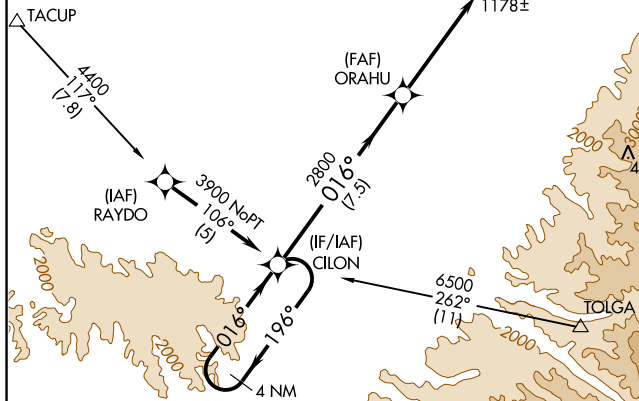
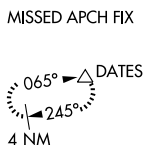
ASOS 135.875	CHINOOK APP CON ★ 133.15 379.15	WALLA WALLA TOWER ★ 118.5 (CTAF) 0 289.4	GND CON 121.6 289.4
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RNAV (GPS) RWY 2
WALLA WALLA RGNL (ALW)

MISSED APPROACH: Climb to 4000 direct TRINA and via 341° track to DATES and hold.

GND CON
121.6 289.4



CATEGORY	A	B	C	D
LPV DA	1423-1 250 (300-1)			
LNAV/VNAV DA	1612-1½ 439 (500-1½)			
LNAV MDA	1620-1	447 (500-1)	1620-1¼ 447 (500-1¼)	1620-1½ 447 (500-1½)
CIRCLING	1760-1	566 (600-1)	1820-1¾ 626 (700-1¾)	1980-2½ 786 (800-2½)

APP CRS

160°

Rwy Idg

5948

TDZE

1136

Apt Elev

1191

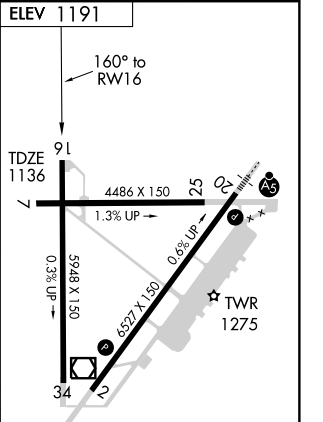
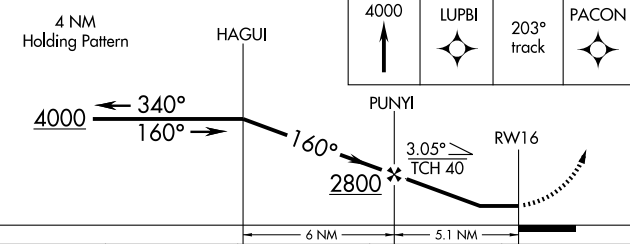
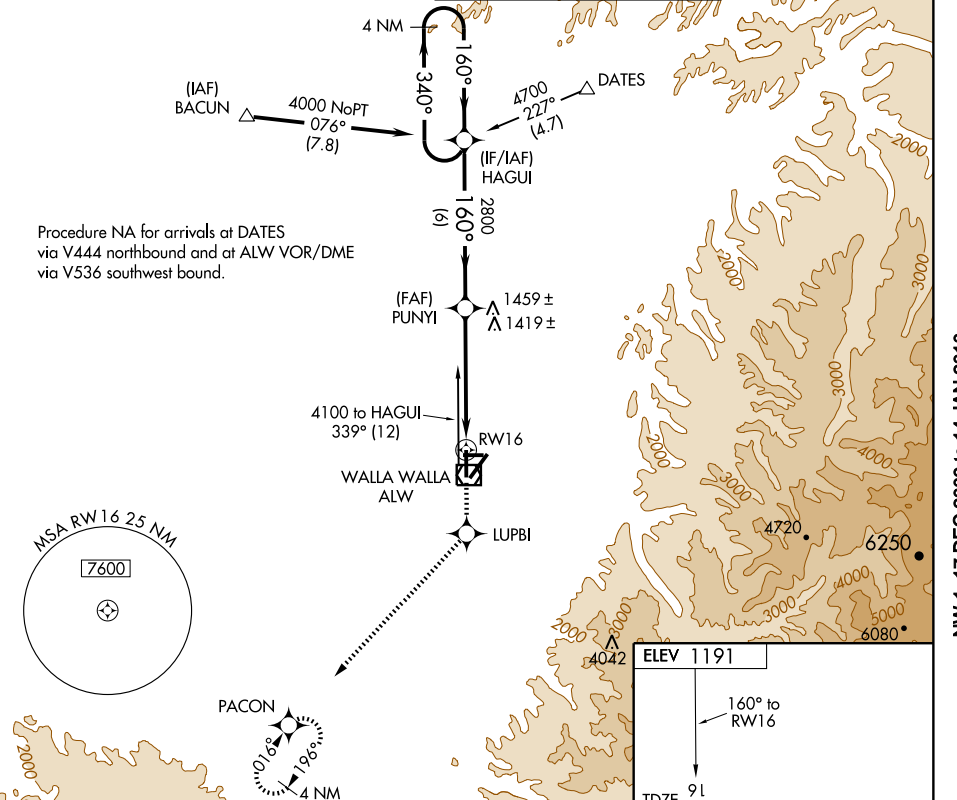
▼

▲

Straight-in/circling to Rwy 16 NA at night.
DME/DME RNP-0.3 NA.
Inoperative table does not apply.

MISSED APPROACH: Climb to 4000 direct LUPBI
and via 203° track to PACON and hold.

ASOS 135.875	CHINOOK APP CON ★ 133.15 379.15	WALLA WALLA TOWER ★ 118.5 (CTAF) 1 289.4	GND CON 121.6 289.4
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CATEGORY	A	B	C	D
RNAV MDA	1660-1	524 (600-1)	1660-1½ 524 (600-1½)	1660-1¾ 524 (600-1¾)
CIRCLING	1760-1	569 (600-1)	1820-1¾ 629 (700-1¾)	1980-2½ 789 (800-2½)

REIL Rwy 2 1

HIRL Rwy 2-20 1

WAAS CH 90299 W20A	APP CRS 196°	Rwy Idg TDZE Apt Elev	6527 1194 1194
--	------------------------	-----------------------------	---

RNAV (GPS) RWY 20

WALLA WALLA RGNL (ALW)

DME/DME RNP-0.3 NA.
Baro-VNAV NA below -17°C (2°F).
 For inoperative MALSR, increase LPV visibility all Cats to RVR 4000.



MISSED APPROACH: Climb to 4000 direct PACON and hold.

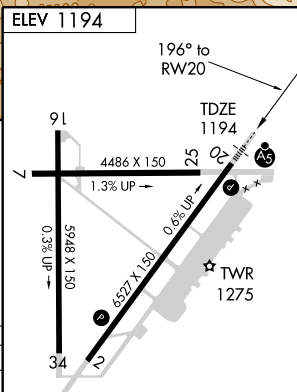
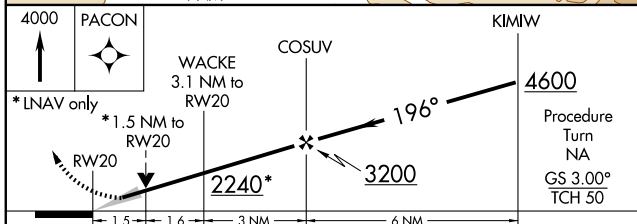
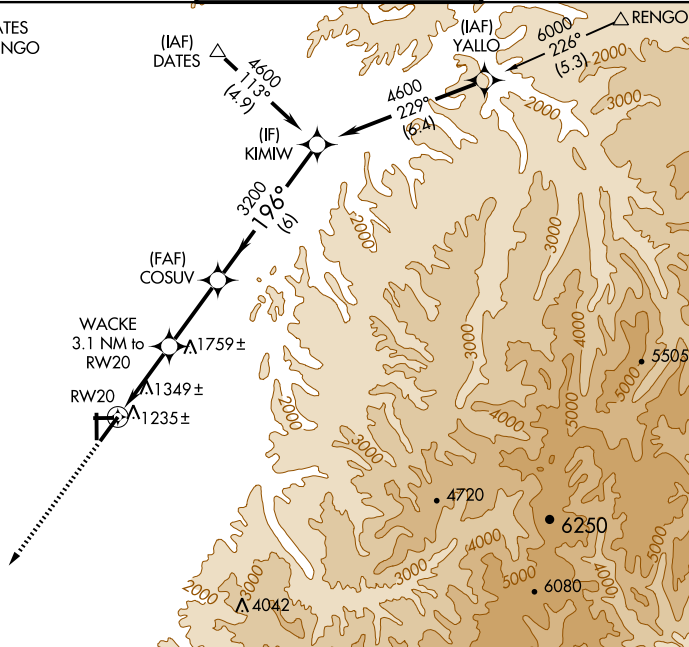
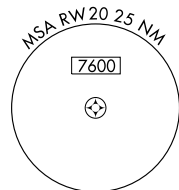
ASOS
135.875

CHINOOK APP CON ★
133.15 379.15

WALLA WALLA TOWER ★
118.5 (CTAF) 0 289.4

GND CON
121.6 289.4

Procedure NA for arrivals at DATES via V444 northbound and at RENG0 via V536 northeast bound.





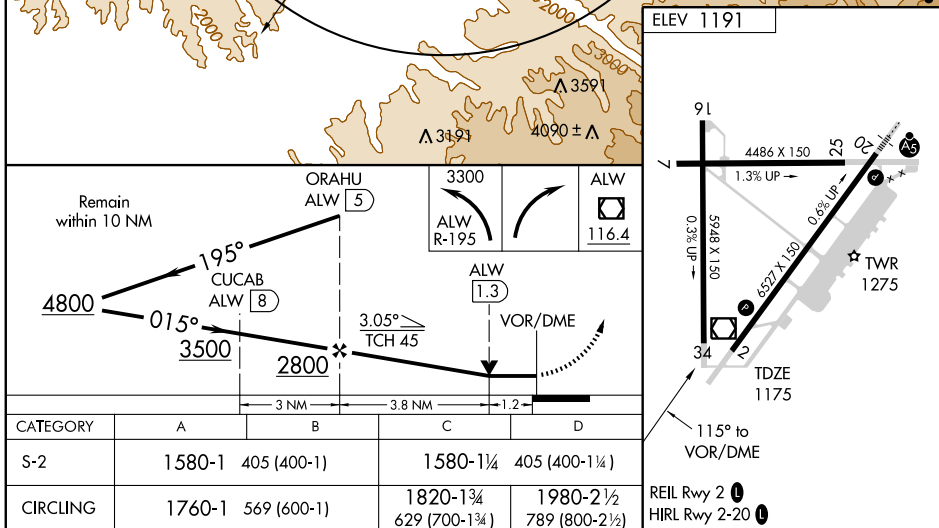
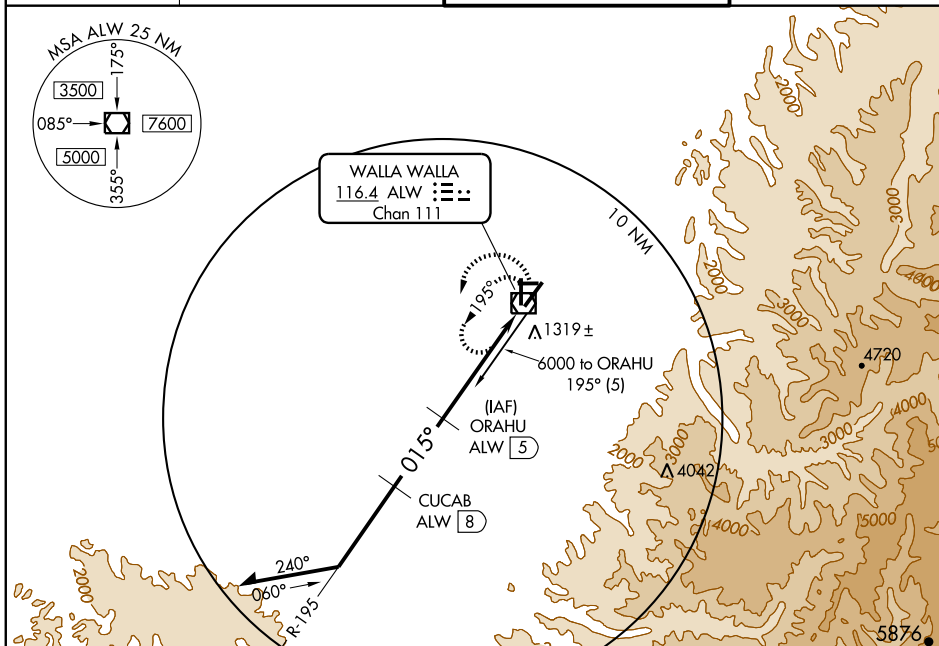
CATEGORY	A	B	C	D
LPV DA	1444/24 250 (300-½)			
LNNAV/VNAV	1694/60 500 (500-1¼)			
LNNAV MDA	1720/24 526 (600-½)		1720/50 526 (600-1)	1720/60 526 (600-1¼)
CIRCLING	1760-1¾ 566 (600-1¾)		1820-1¾ 626 (700-1¾)	1980-2½ 786 (800-2½)

REIL Rwy 2 0
HIRL Rwy 2-20 0

VOR/DME ALW <u>116.4</u> Chan 111	APP CRS 015°	Rwy Idg TDZE Apt Elev	6527 1175 1191
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VOR/DME RWY 2
WALLA WALLA RGNL (ALW)

 		MISSED APPROACH: Climbing left turn to 3300 via ALW VOR/DME R-195 within 10 DME then turn right direct ALW VOR/DME and hold.	
ASOS 135.875	CHINOOK APP CON ★ 133.15 379.15	WALLA WALLA TOWER ★ 118.5 (CTAF) 0 289.4	GND CON 121.6 289.4



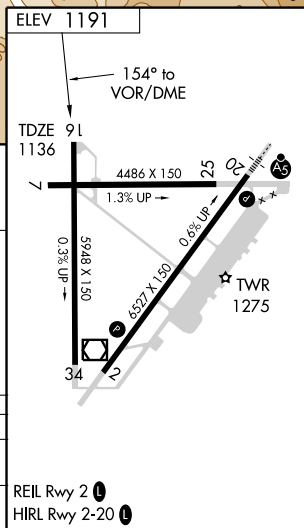
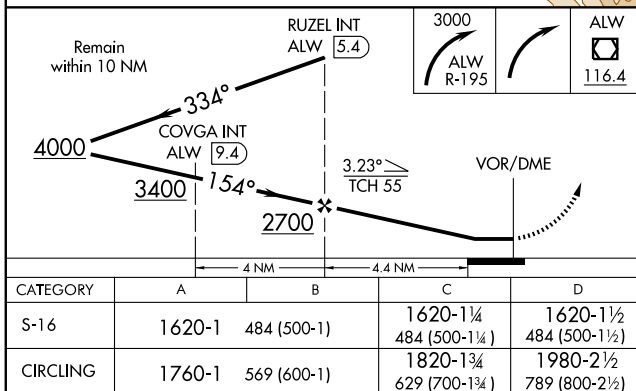
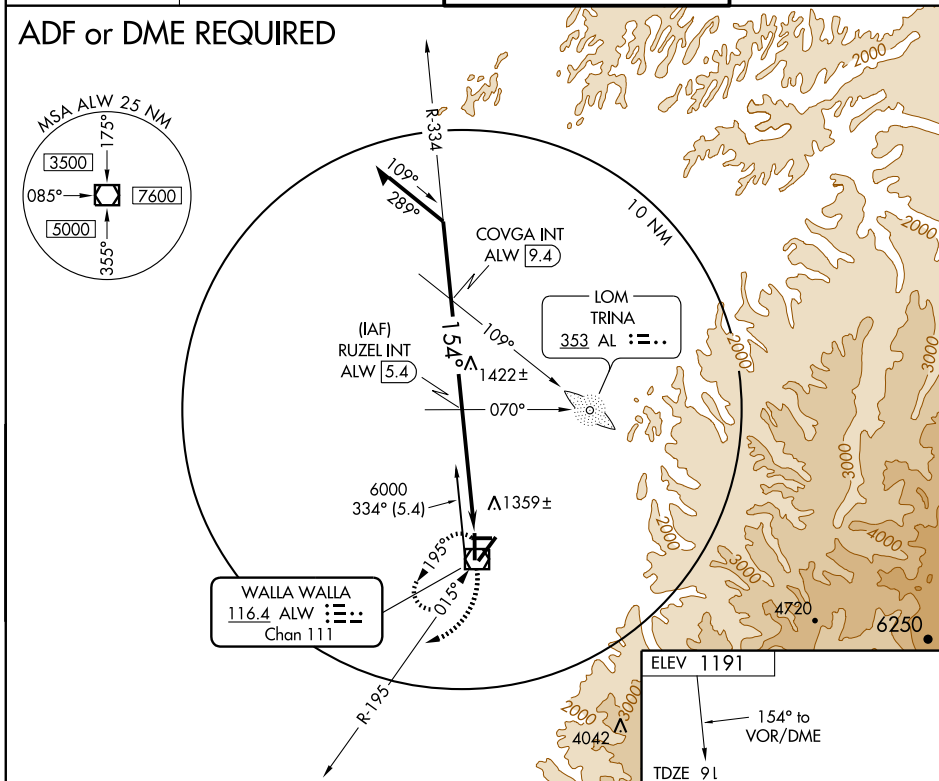
VOR/DME ALW	APP CRS	Rwy Idg	5948
116.4	154°	TDZE	1136
Chan 111		Apt Elev	1191

VOR RWY 16

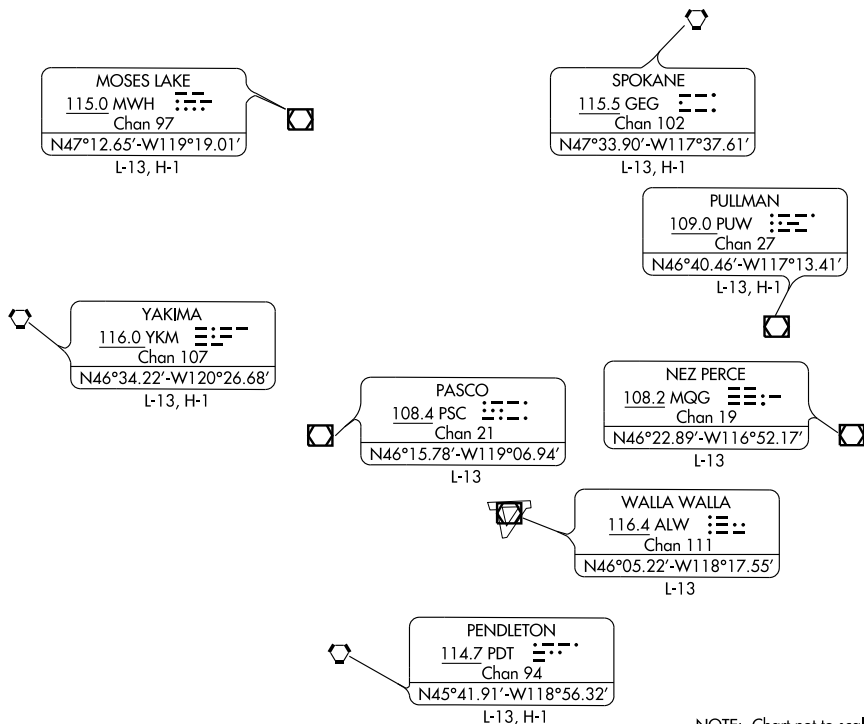
WALLA WALLA RGNL (ALW)

<div><div><div></div><div>NA</div></div></div> <div>Straight-in/circling to Rwy 16 NA at night. Inoperative table does not apply.</div>		MISSED APPROACH: Climbing right turn to 3000 via ALW VOR/DME R-195 within 10 DME then right turn direct ALW VOR/DME and hold.	
ASOS 135.875	CHINOOK APP CON ★ 133.15 379.15	WALLA WALLA TOWER ★ 118.5 (CTAF) 0 289.4	GND CON 121.6 289.4

ADF or DME REQUIRED



WALLA WALLA GND CON
121.6 289.4
WALLA WALLA TOWER ★
118.5 (CTAF) 289.4
CHINOOK APP CON ★
133.15 379.15



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF ALL RUNWAYS: Climb via specified turn and heading for vector to assigned route.

LOST COMMUNICATIONS: If not in contact with Departure Control after reaching 2500' continue climb to assigned altitude and proceed direct to ALW VOR/DME, thence via assigned route.

Note: Air Traffic Control may assign turns and magnetic headings of 195° clockwise through 020° in the initial clearance.

LOC/DME I-ADJ	APP CRS	Rwy Idg	5700
109.35	116°	TDZE	1226
Chan 30(Y)		Apt Elev	1249

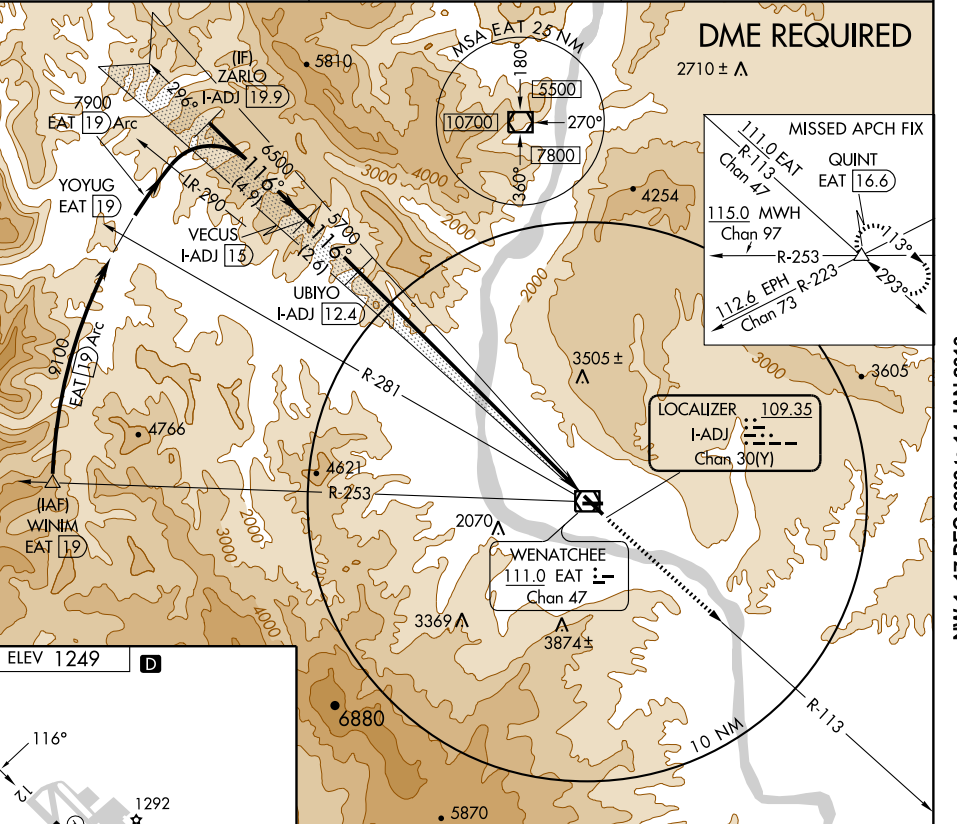
▼

▲

When VGSI inoperative, procedure NA at night.

MISSED APPROACH: Climb to 4000 direct EAT VOR/DME and via EAT R-113 to QUINT INT/EAT 16.6 DME and hold.

ASOS 119.925	SEATTLE CENTER 126.1 291.6	UNICOM 123.0 (CTAF) 0
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ELEV 1249

D

116°

1292

1276

1258 ±

30

4460 X 75

5700 X 150

1.0% UP

TDZE 1226

RAIL Rwy 30
REIL Rws 12 and 30
MIRL Rwy 12-30

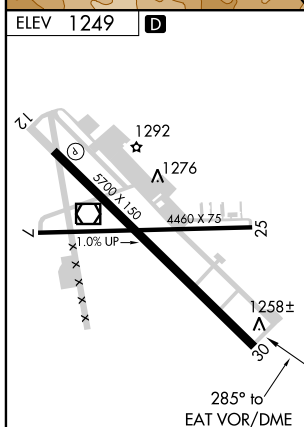
	ZARLO I-ADJ 19.9	VECUS I-ADJ 15	UBIYO I-ADJ 12.4	4000 EAT 111.0	EAT R-113 111.0	QUINT Δ
	7900	6500	5700	Use I-ADJ DME when on the localizer course. VGSI and ILS glidepath not coincident.		
	Procedure Turn NA					
	GS 3.60°					
	TCH 46					
	4.9 NM	2.6 NM	11.3 NM			
CATEGORY	A	B	C	D		
S-ILS 12	2539-4	1313 (1300-4)		NA		
CIRCLING				NA		

NW-1. 17 DEC 2009 to 14 JAN 2010

WENATCHEE/PANGBORN MEMORIAL (EAT)

MISSED APPROACH: Climb to 3900 then climbing left turn to 6000 direct EAT VOR/DME and hold, continue climb-in-hold to 6000.

UNICOM
123.0 (CTAF) **L**



CATEGORY	A	B	C	D
CIRCLING	3180-1¼ 1931 (2000-1¼)	3180-1½ 1931 (2000-1½)	3180-3	1931 (2000-3)

VOR/DME EAT 111.0 Chan 47	APP CRS 100°	Rwy Idg TDZE Apt Elev 1249	N/A N/A 1249
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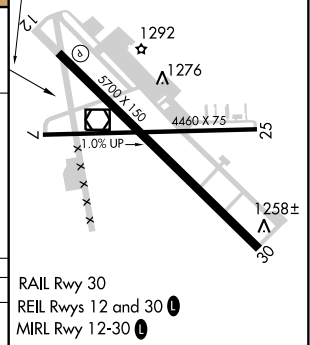
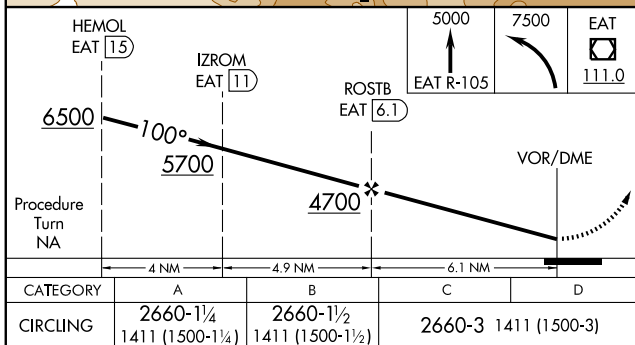
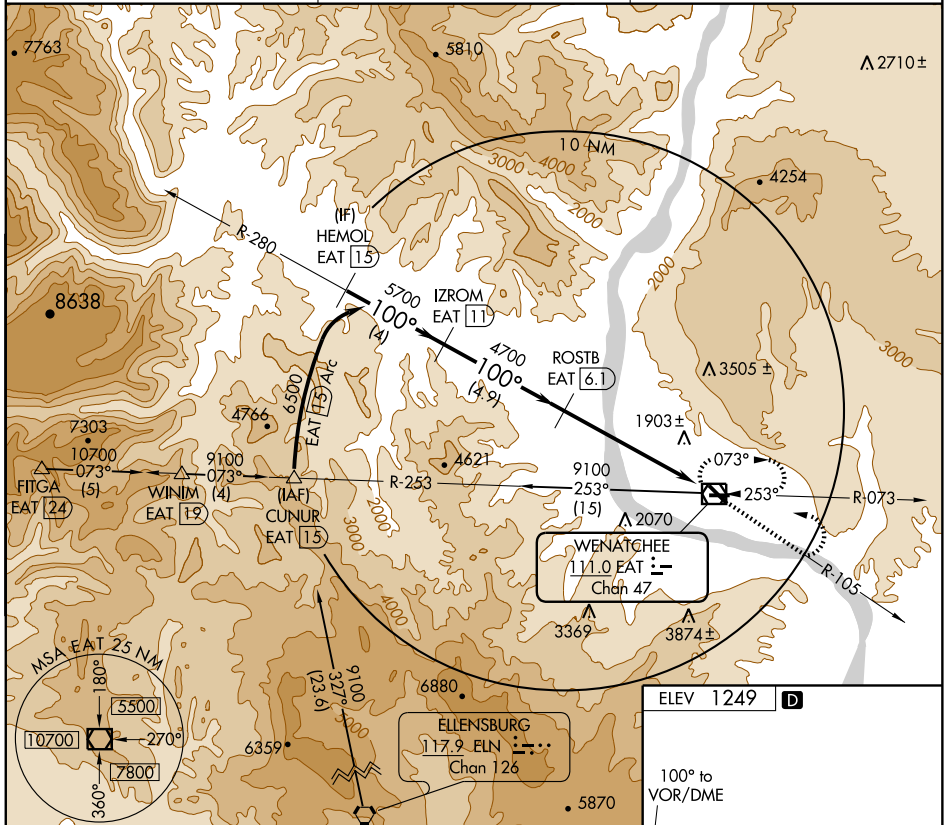
VOR/DME-C

WENATCHEE/PANGBORN MEMORIAL (EAT)

⚠ Circling NA northeast of Rwy 12-30.
⚠ When local altimeter setting not received, use Ephrata altimeter setting and increase all MDA 80 feet.

MISSED APPROACH: Climb to 5000 via EAT VOR/DME R-105 then climbing left turn to 7500 direct EAT VOR/DME and hold, continue climb-in-hold to 7500.

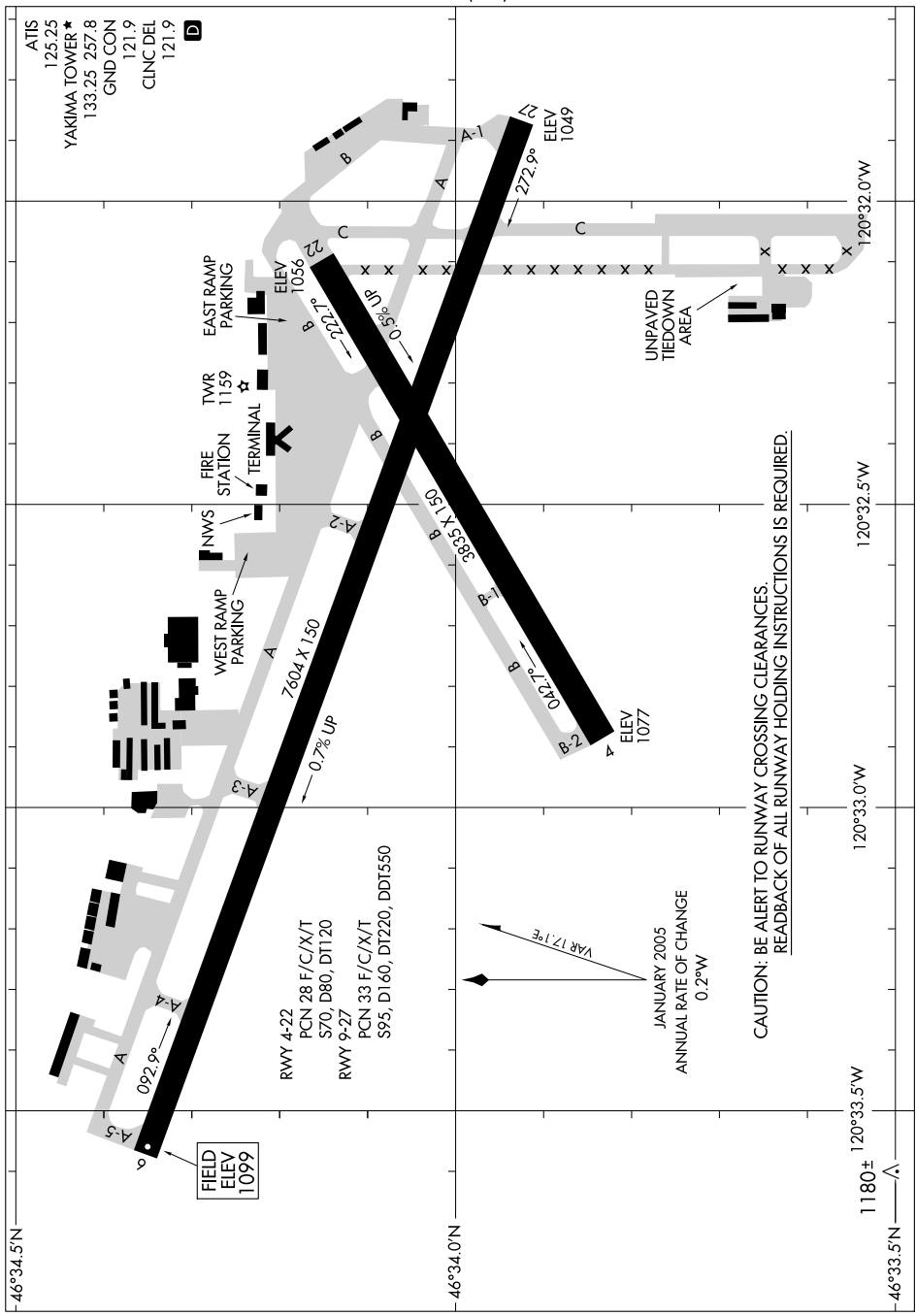
ASOS 119.925	SEATTLE CENTER 126.1 291.6	UNICOM 123.0 (CTAF) ①
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AIRPORT DIAGRAM

AL-465 (FAA)

YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKM)
YAKIMA, WASHINGTON



NW-1, 17 DEC 2009 to 14 JAN 2010

LOM YK <u>371</u>	APCH CRS 269°	Rwy ldg 7603 TDZE 1065 Arpt Elev 1095
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AL-465 [USA]

YAKIMA AIR TERMINAL/ MC ALLISTER FLD (KYKM)

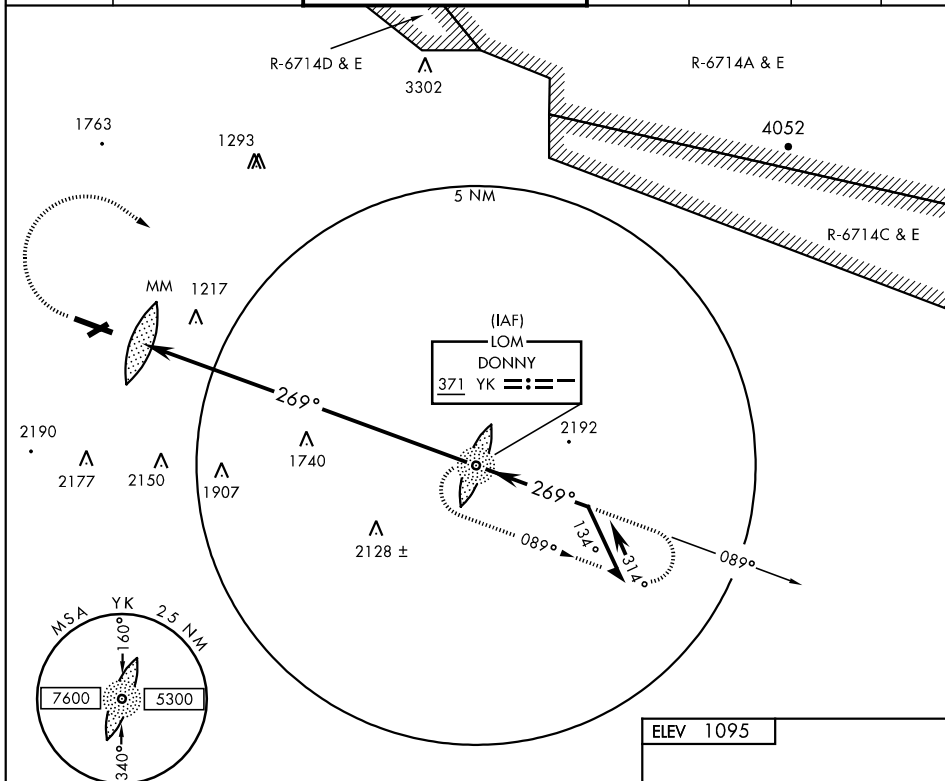


A NA

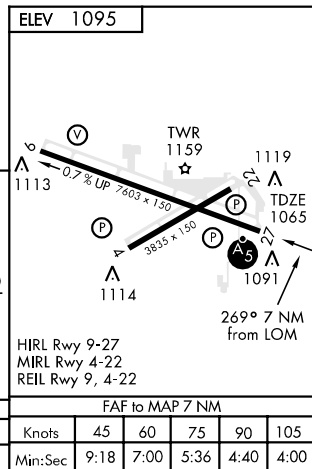
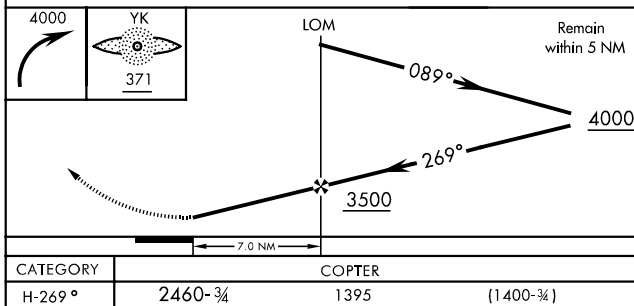


MISSED APPROACH: Climbing right turn to 4000 direct DONNY LOM and hold.

ATIS ★ 125.25	CHINOOK APP CON 123.8 263.15	YAKIMA TOWER ★ 133.25 (CTAF) 0 257.8	GND CON 121.9	CLNC DEL 121.9	UNICOM 122.95	ASOS
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COPTER ONLY

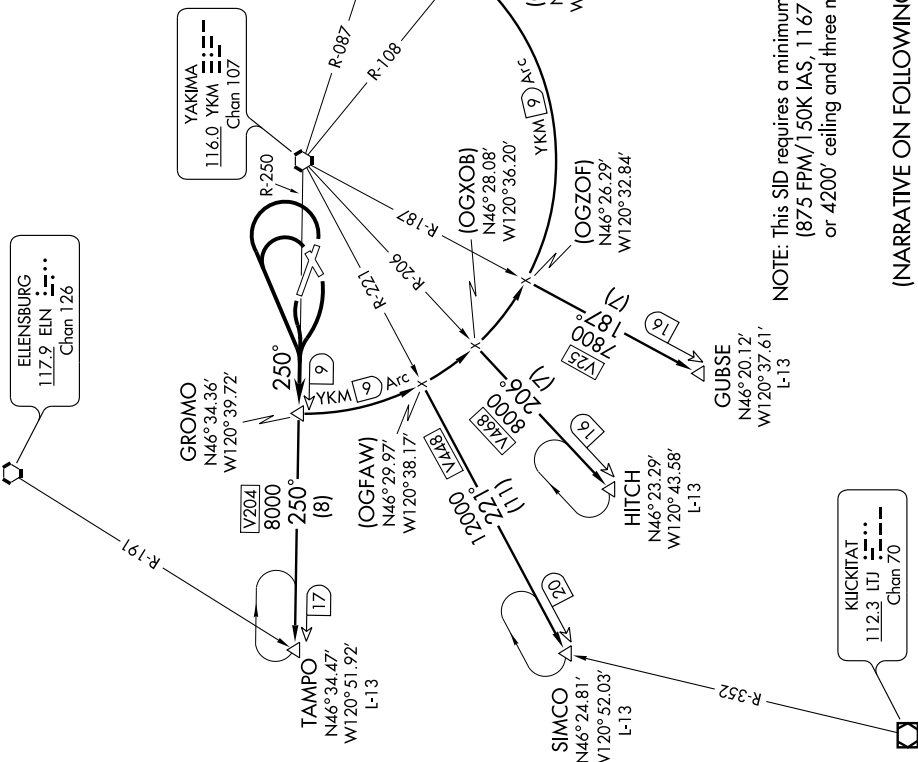
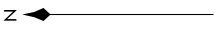


GROMO TWO DEPARTURE

SL-465 (FAA)

YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKM)
YAKIMA, WASHINGTON

ATIS
125.25
GND CON
121.9
YAKIMA TOWER ★
133.25 (CTAF) 257.8
CHINOOK DEP CON
123.8 263.15



(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 4, 9: Turn left, thence....

TAKE-OFF RUNWAY 22: Turn right, thence....

TAKE-OFF RUNWAY 27: Climb runway heading, thence....

....Intercept and proceed via YKM R-250 to the GROMO DME Fix (YKM R-250/9), thence via (assigned transition).

GUBSE TRANSITION (GROMO2.GUBSE): From over GROMO DME Fix via 9 DME Arc and V25 to GUBSE DME Fix.

HITCH TRANSITION (GROMO2.HITCH): From over GROMO DME Fix via 9 DME Arc and V468 to HITCH DME Fix. NOTE: Climb in holding pattern NE of HITCH DME Fix, right turns, 206° inbound to 8000 feet before proceeding on course.

PAPPS TRANSITION (GROMO2.PAPPS): From over GROMO DME Fix via 9 DME Arc and V204 to PAPPS INT.

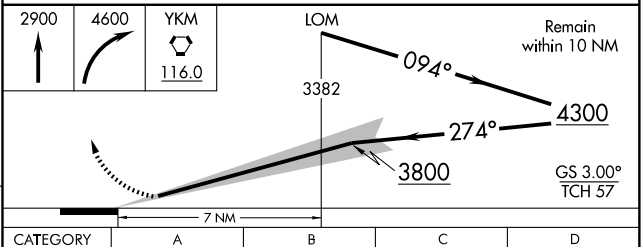
SIMCO TRANSITION (GROMO2.SIMCO): From over GROMO DME Fix via 9 DME Arc and V448 to SIMCO INT. NOTE: Climb in holding pattern NE of SIMCO INT, right turns, 221° inbound to 12000 feet before proceeding on course.

SUNED TRANSITION (GROMO2.SUNED): From over GROMO DME Fix via 9 DME Arc and V4 to SUNED INT.

TAMPO TRANSITION (GROMO2.TAMPO): From over GROMO DME Fix via V204 to TAMPO INT. NOTE: Climb in holding pattern east of TAMPO INT, right turns, 250° inbound to 8000' before proceeding on course.

YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKM)

- MALSR

UNICOM

MIRL Rwy 4-22
HIRL Rwy 9-27 **L**
REIL Rwys 4, 9, and 22

ILS Z RWY 27

YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKM)

MALSR

MISSED APPROACH: Climb to 2600, then climbing right turn to 4600 direct YKM VORTAC and hold, continue climb-in-hold to 4600.

2600 ↑	4600 ↗	YKM ⬡ 116.0				
CATEGORY	A	B	C	D	E	F

CATEGORY	A	B	C	D
S-ILS 27	**1268/24 200 (200-½)			
CIRCLING	1640-1 541 (600-1)	1660-1 561 (600-1)	1700-1¾ 601 (700-1¾)	1800-2¼ 701 (800-2¼)

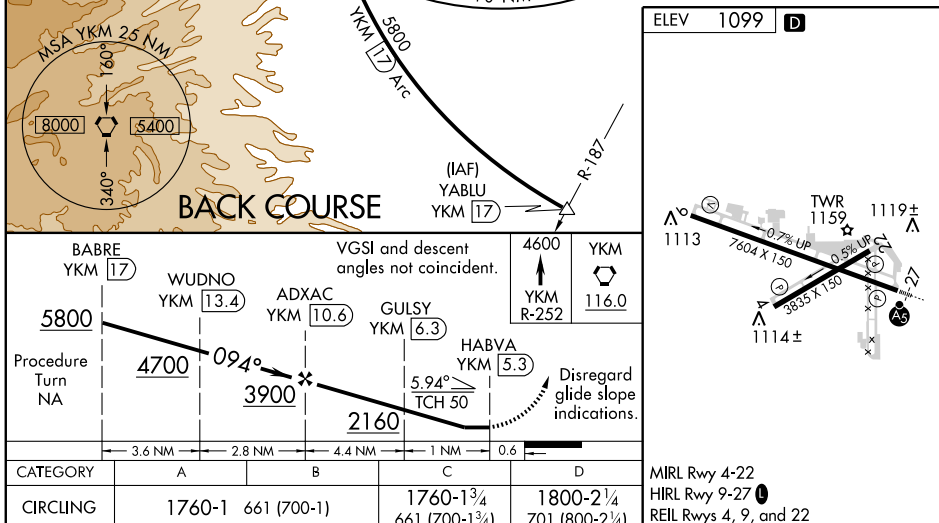
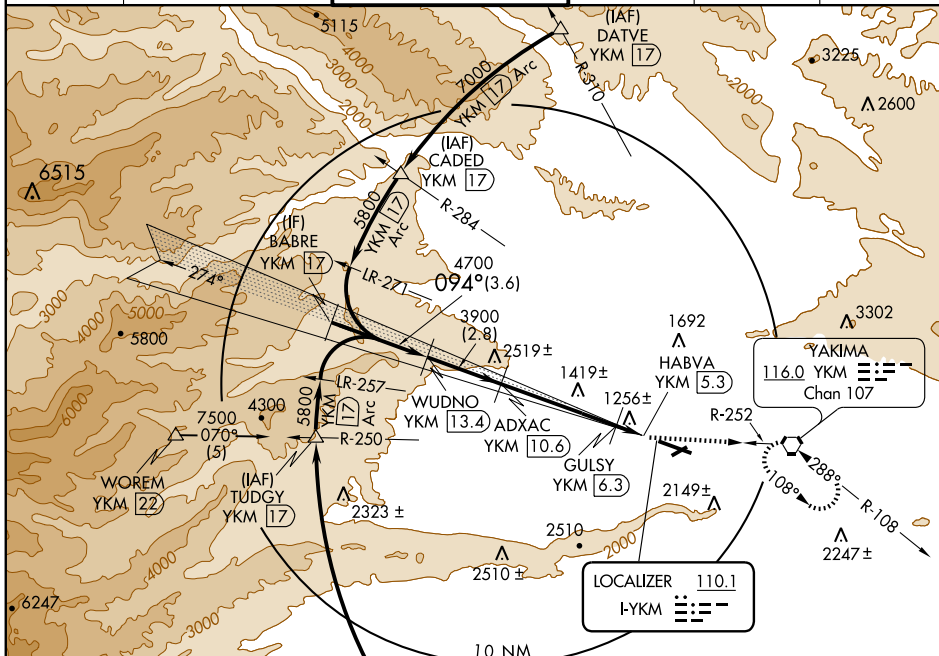
LOC I-YKM	APP CRS	Rwy Idg TDZE	N/A
110.1	094°	Apt Elev	1099

LOC/DME BC-B

YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKM)

<p>Simultaneous reception of I-YKM and YKM DME required.</p> <p>Circling NA south of Rwy 9-27.</p> <p>When local altimeter setting not received, procedure NA.</p>	<p>MISSED APPROACH: Climb to 4600 via YKM VORTAC R-252 to YKM VORTAC and hold, continue climb-in-hold to 4600.</p>
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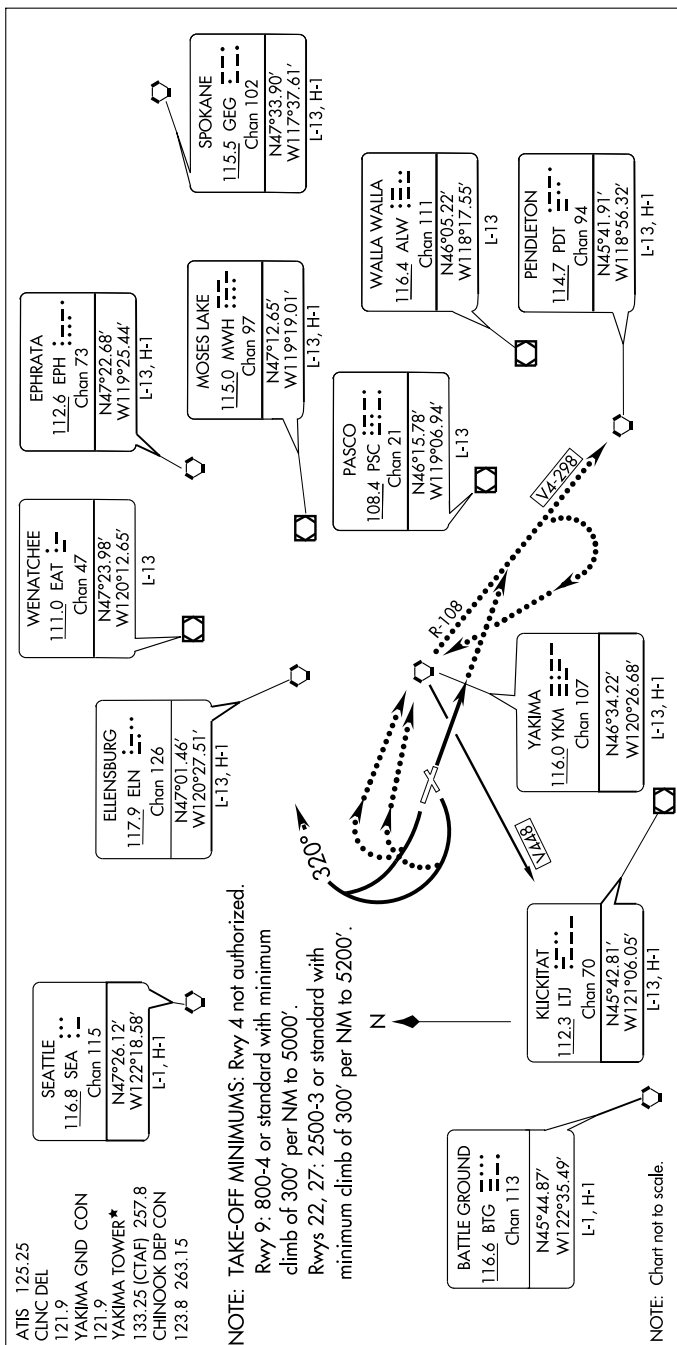
ATIS	CHINOOK APP CON ★	YAKIMA TOWER ★	GND CON	CLNC DEL	UNICOM
125.25	123.8 263.15	133.25 (CTAF) 0 257.8	121.9	121.9	122.95



NACHES ONE DEPARTURE

SL-465 (FAA)

YAKIMA, WASHINGTON



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 9: Runway heading for vector to assigned route/fix. Thence

TAKE-OFF RUNWAY 22 and 27: Turn right heading 320° for vector to assigned route/fix. Thence

.... Maintain 10,000' or assigned lower altitude. Expect clearance to filed altitude 5 minutes after departure.

LOST COMMUNICATIONS: If no transmissions are received for one minute after departure: Rwy 9 climb runway heading and outbound YKM VORTAC R-108, Rwy 22, 27, climbing right turn direct YKM VORTAC and outbound YKM VORTAC R-108, Eastbound V4-V298 climb on course, other departures continue climb on YKM R-108 until reaching assigned altitude, (southwestbound V448 continue minimum climb of 300' per NM to 9500') then climbing right turn direct YKM VORTAC. Cross YKM VORTAC at or above MEA or MCA for route of flight.

APP CRS **264°**
Rwy Idg **7604**
TDZE **1068**
Apt Elev **1099**

RNAV (GPS) Y RWY 27

YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKMA)

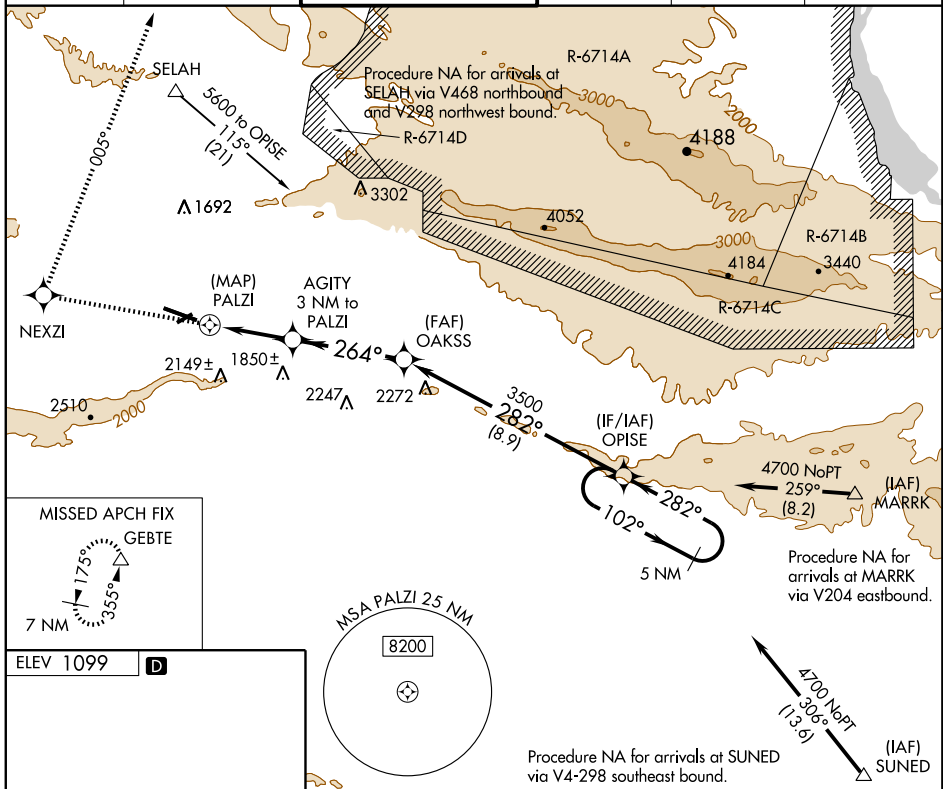
▼ When local altimeter setting not received, procedure NA. Circling
NA south of Rwy 9/27. DME/DME RNP-0.3 NA. For inoperative
MALSR increase LNAV Cat A visibility to RVR 5000.

MALSR



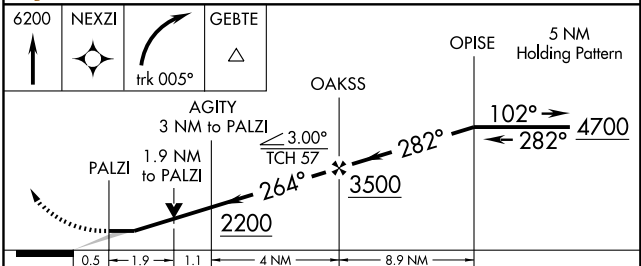
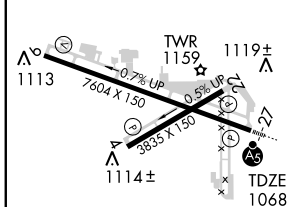
MISSED APPROACH: Climb to 6200 direct
NEXZI and right turn via track 005° to GEBTE
and hold, continue climb-in-hold to 6200.

ATIS 125.25	CHINOOK APP CON ★ 123.8 263.15	YAKIMA TOWER ★ 133.25 (CTAF) 257.8	GND CON 121.9	CLNC DEL 121.9	UNICOM 122.95
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ELEV 1099

D



MIRL Rwy 4-22
HIRL Rwy 9-27
REIL Rwy 4, 9, and 22

CATEGORY	A	B	C	D
LNAV MDA	1880/40	812 (800-¾)	1880-2 812 (800-2)	1880-2¼ 812 (800-2¼)
CIRCLING	1880-1 781 (800-1)	1880-1¼ 781 (800-1¼)	1880-2½ 781 (800-2½)	1880-2¾ 781 (800-2¾)

RNAV (GPS) Z RWY 27

YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKM)

- MALSR

MISSED APPROACH: Climb to 6200 direct BOPSS and right turn via track 005° to GEBTE and hold, continue climb-in-hold to 6200.

Procedure NA for arrivals at SELAH via V468 northbound and V298 northwest bound.

Procedure NA for arrivals at MARRK via V204 eastbound.

Procedure NA for arrivals at SUNED via V4-298 southeast bound.

MISSED APCH FIX

GEBTE

7 NM

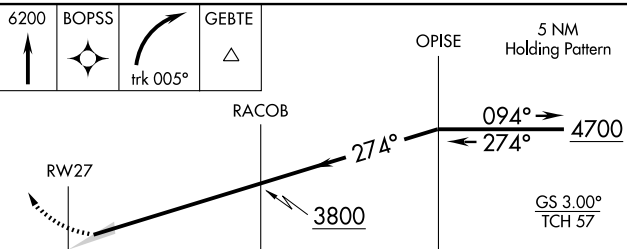
ELEV 1099

MSA RW27 25 NM

8200

274° to RW27

NW-1. 17 DEC 2009 to 14 JAN 2010

6200 ↑	BOPSS ⊙	trk 005° ↗	GEBTE △				
CATEGORY	A	B	C	D			
LPV DA	1329/24 261 (300-1/2)						
CIRCLING	1640-1 541 (600-1)	1660-1 561 (600-1)	1700-1 3/4 601 (700-1 3/4)	1800-2 1/4 701 (800-2 1/4)			

VORTAC YKM 116.0 Chan 107	APP CRS 251°	Rwy Idg TDZE Apt Elev N/A N/A 1099
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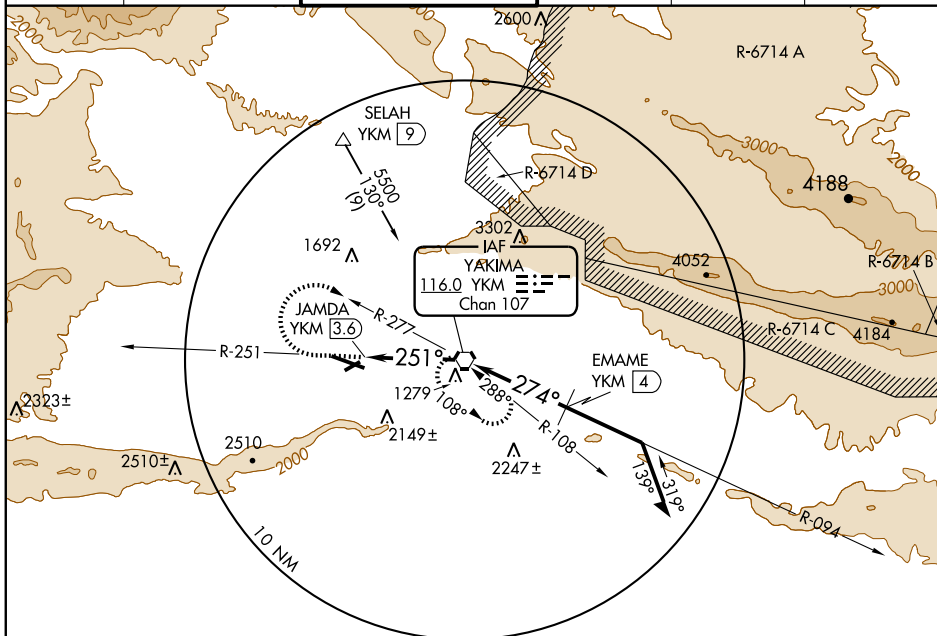
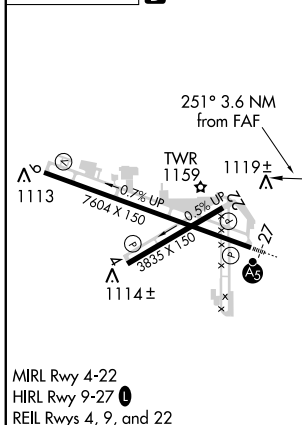
VOR-A

YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKM)

▼ DME required.
 ▲ Circling not authorized South of Rwy 9-27.
 ▲ When local altimeter setting not received, procedure NA.

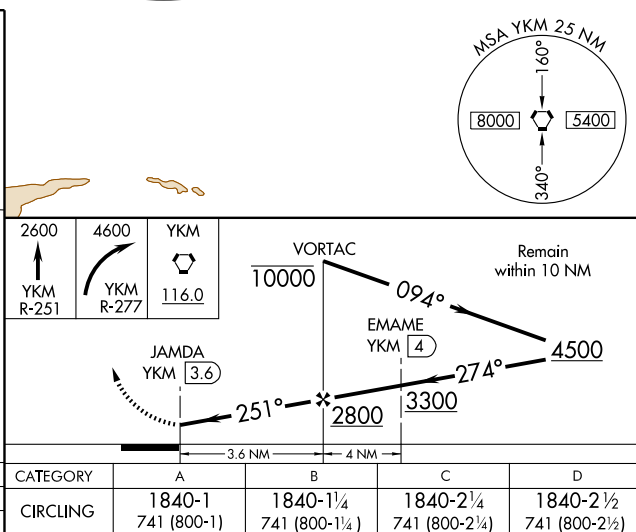
MISSED APPROACH: Climb to 2600 via YKM VORTAC R-251 then climbing right turn to 4600 via YKM VORTAC R-277 to YKM VORTAC and hold, continue climb-in-hold to 4600.

ATIS 125.25	CHINOOK APP CON★ 123.8 263.15	YAKIMA TOWER★ 133.25 (CTAF) 0 257.8	GND CON 121.9	CLNC DEL 121.9	UNICOM 122.95
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ELEV 1099 **D**

MIRL Rwy 4-22
 HIRL Rwy 9-27
 REIL Rws 4, 9, and 22

FAF to MAP 3.6 NM					
Knots	60	90	120	150	180
Min:Sec	3:36	2:24	1:48	1:26	1:12



VORTAC YKM	APP CRS	Rwy Idg	7604
116.0	244°	TDZE	1068
Chan 107		Apt Elev	1099

VOR/DME or TACAN RWY 27

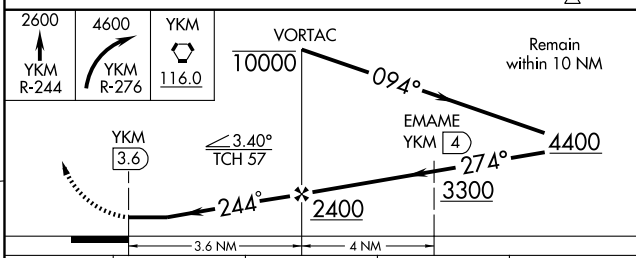
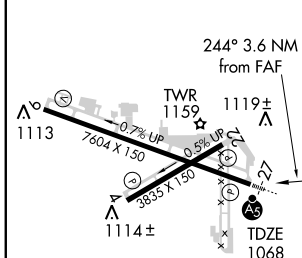
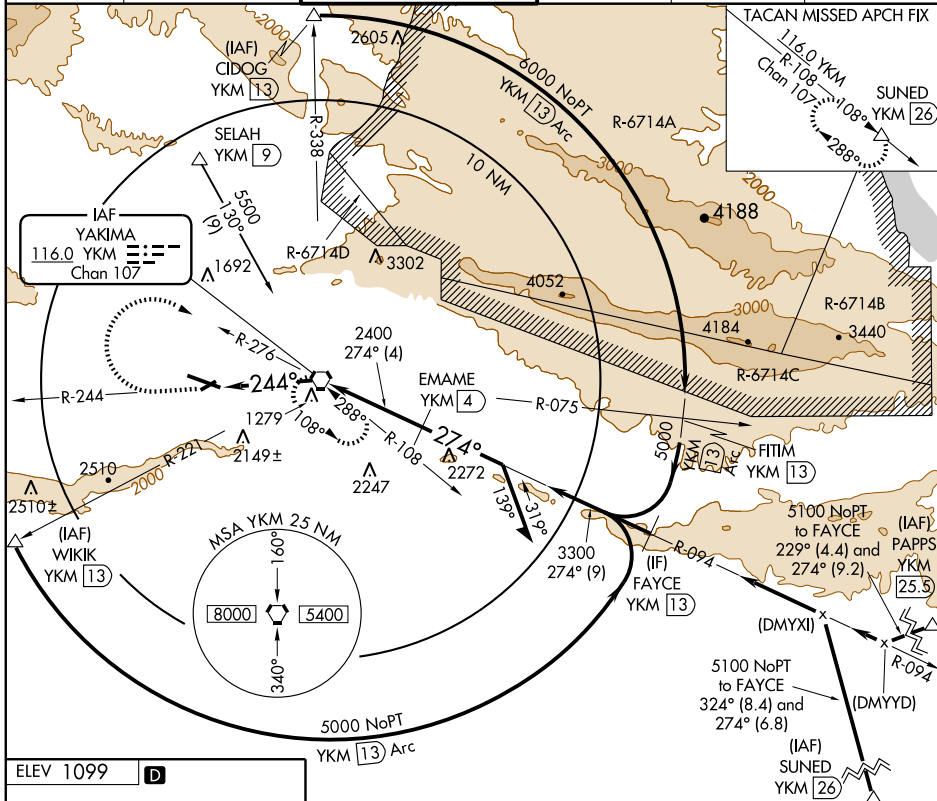
YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKM)

⚠ Inoperative table does not apply.
⚠ Circling NA south of Rwy 9-27.
 When local altimeter setting not received, procedure NA.



MISSED APPROACH: Climb to 2600 via YKM VORTAC R-244, then climbing right turn to 4600 via YKM VORTAC R-276 to YKM VORTAC and hold, continue climb-in-hold to 4600 (TACAN aircraft, continue climb to 5000 via YKM VORTAC R-108 to SUNED/YKM 26 DME and hold west, right turns, 108° inbound).

ATIS	CHINOOK APP CON *	YAKIMA TOWER *	GND CON	CLNC DEL	UNICOM
125.25	123.8 263.15	133.25 (CTAF) 257.8	121.9	121.9	122.95



MIRL Rwy 4-22
 HIRL Rwy 9-27
 REIL Rws 4, 9, and 22

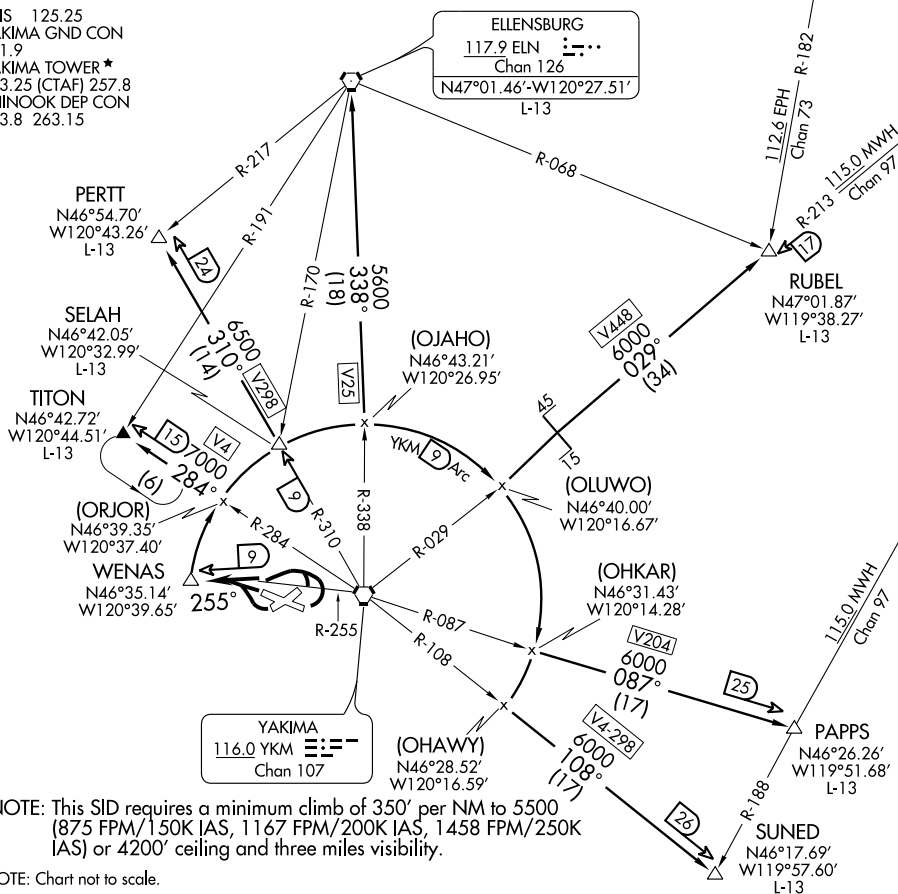
CATEGORY	A	B	C	D
S-27	2100/60 1032 (1100-1¼)	2100-1½ 1032 (1100-1½)	2100-3	1032 (1100-3)
CIRCLING	2100-1¼ 1001 (1100-1¼)	2100-1½ 1001 (1100-1½)	2100-3	1001 (1100-3)

WENAS FIVE DEPARTURE

YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKM)
SL-465 (FAA)

YAKIMA, WASHINGTON

ATIS 125.25
YAKIMA GND CON
121.9
YAKIMA TOWER ★
133.25 (CTAF) 257.8
CHINOOK DEP CON
123.8 263.15



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 4, 9: Turn left thence...

TAKE-OFF RUNWAY 22: Turn right thence....

TAKE-OFF RUNWAY 27: Climb runway heading thence....

....Intercept and proceed via YKM R-255 to the WENAS DME Fix (YKM 255/9) thence via (assigned transition).

ELLENSBURG TRANSITION (WENAS5.ELN): From over WENAS DME Fix via 9 DME Arc and V25 to ELN VORTAC.

PAPPS TRANSITION (WENAS5.PAPPS): From over WENAS DME Fix via 9 DME Arc and V204 to PAPPS INT.

PERTT TRANSITION (WENAS5.PERTT): From over WENAS DME Fix via 9 DME Arc and V298 to PERTT INT.

RUBEL TRANSITION (WENAS5.RUBEL): From over WENAS DME Fix via 9 DME Arc and V448 to RUBEL INT.

SELAH TRANSITION (WENAS5.SELAH): From over WENAS DME Fix via 9 DME Arc to SELAH INT.

SUNED TRANSITION (WENAS5.SUNED): From over WENAS DME Fix via 9 DME Arc and V4 to SUNED INT.

TITON TRANSITION (WENAS5.TITON): From over WENAS DME Fix via 9 DME Arc and V4 to TITON INT.


NOTE: Climb in holding pattern Southeast of TITON INT, left turns, 284° inbound to 7000 feet before proceeding on course.

YAKIMA FIVE DEPARTURE

YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKM)
SL-465 (FAA)

YAKIMA, WASHINGTON

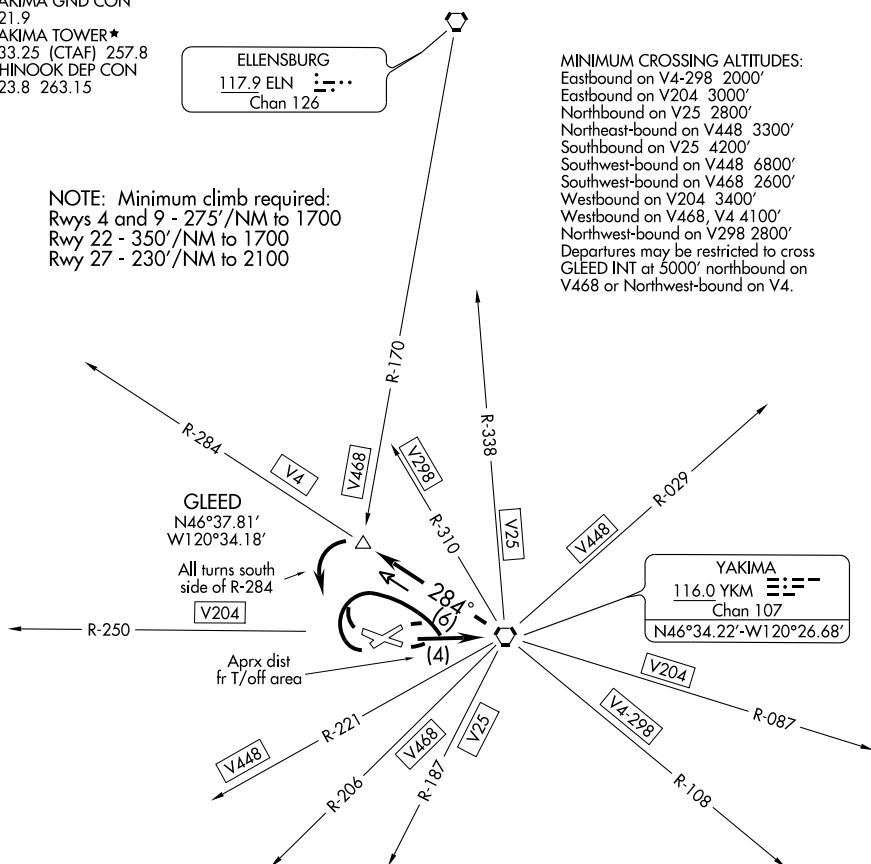
ATIS 125.25
YAKIMA GND CON
121.9
YAKIMA TOWER★
133.25 (CTAF) 257.8
CHINOOK DEP CON
123.8 263.15

ELLENSBURG
117.9 ELN 
Chan 126

NOTE: Minimum climb required:
Rwys 4 and 9 - 275'/NM to 1700
Rwy 22 - 350'/NM to 1700
Rwy 27 - 230'/NM to 2100

MINIMUM CROSSING ALTITUDES:

Eastbound on V4-298 2000'
Eastbound on V204 3000'
Northbound on V25 2800'
Northeast-bound on V448 3300'
Southbound on V25 4200'
Southwest-bound on V448 6800'
Southwest-bound on V468 2600'
Westbound on V204 3400'
Westbound on V468, V4 4100'
Northwest-bound on V298 2800'
Departures may be restricted to cross
GLEED INT at 5000' northbound on
V468 or Northwest-bound on V4.



NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 4, 22 or 27: Turn right, thence....

TAKE-OFF RUNWAY 9: Turn left, thence....

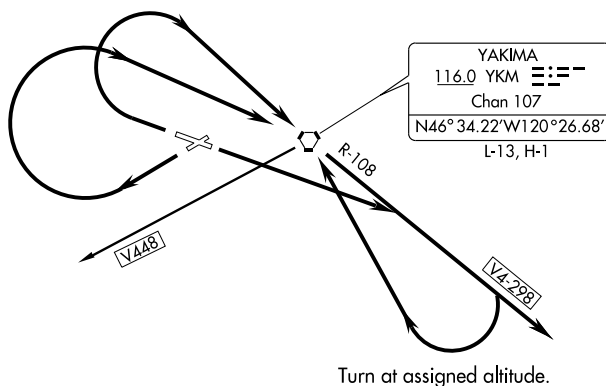
....Climb direct YKM VORTAC. Continue climb on YKM R-284 between the VORTAC and GLEED INT., all turns south of the 284 radial, to cross YKM VORTAC at or above (minimum crossing altitudes). Thence via (assigned route).

ATIS 125.25
 CLNC DEL
 121.9
 YAKIMA GND CON
 121.9
 YAKIMA TOWER ★
 133.25 (CTAF) 257.8
 CHINOOK DEP CON
 123.8 263.15

NOTE: TAKE-OFF MINIMUMS: Rwy 4 not authorized.

Rwy 9: 800-4 or standard with a minimum
 climb of 300' per NM to 5000'.

Rwys 22 and 27: 2500-3 or standard with minimum
 climb of 300' per NM to 5200'.



NOTE: Chart not to scale.



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 9: Climb runway heading and outbound YKM R-108. Thence....

TAKE-OFF RUNWAYS 22 and 27: Climbing right turn direct YKM VORTAC and outbound R-108. Thence....

..... Eastbound aircraft V4-298 continue climb on course, other departures continue climb on YKM R-108 until reaching assigned altitude, (Southwestbound V448 continue minimum climb of 300' per NM to 9500'), then climbing right turn direct YKM VORTAC. All aircraft cross YKM VORTAC at or above MEA or MCA for route of flight.